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VARIABLE CLASS IX AUTHORIZED STOCKAGE LIST (ASL)
ADD/RETAIN POLICY FOR DIVISION SUPPORT COMMANDS(U) ARMY
LOGISTICS CENTER FORT LEE VA G W KROPP ET AL.
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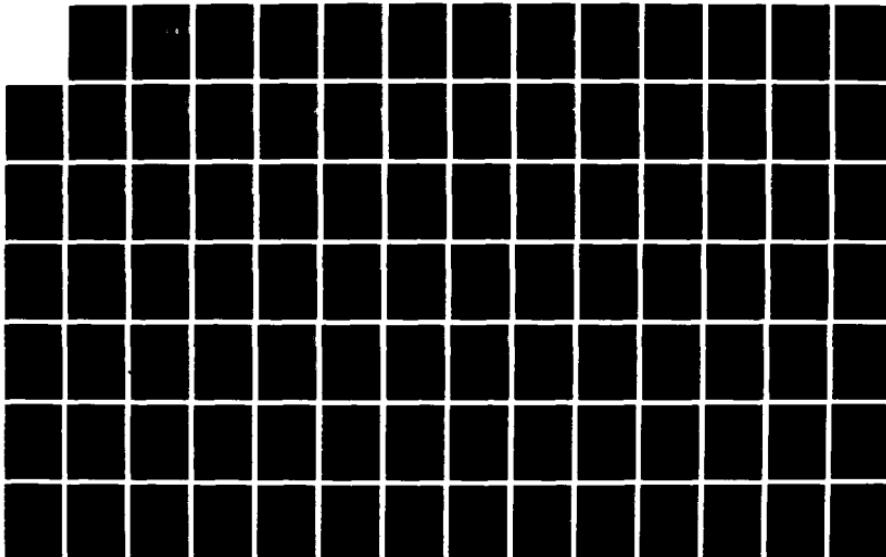
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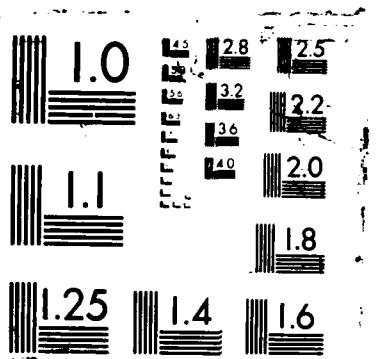
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UNITED STATES ARMY
TRAINING AND DOCTRINE COMMAND

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VARIABLE CLASS IX AUTHORIZED STOCKAGE LIST (ASL)
ADD/RETAIN POLICY FOR DIVISION SUPPORT COMMANDS

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FINAL REPORT

1 July 1980

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This evaluation was initiated and sponsored by DA ODCSLOG and performed by the US Army Logistics Center at Fort Lee, Virginia.

This evaluation has been approved by the Commander, US Army Logistics Center.

The conclusions and recommendations of this evaluation are those of the Commander, US Army Logistics Center and are based upon information gathered and analysis performed primarily by the US Army Logistics Center.

The Logistics Center Evaluation Team included Mr. Gregory W. Kropp, Evaluation Team Chief, and the following team members: CPT Dale M. Abrahamson, 2LT Brian G. Weidner, Ms. Cathryn Wilkinson, and CW4 Thomas L. Anderson; the Technical Support Team consisted of Mr. Billy M. Williams, Technical Project Officer, Mr. Raymond E. Spain, and Mrs. Marilyn Z. Antunes.

Mr. Edward L. Faulkner, Materiel Systems Directorate, US Army Logistics Center, provided significant contributions to the evaluation.

ABSTRACT

Variable Class IX Authorized Stockage List (ASL) Add/Retain Policy for Division Support Commands (DISCOMs) evaluates a revised policy to govern ASL additions and retentions of repair parts. In lieu of fixed addition and retention criteria for all items, the proposed criteria will be variable by materiel category (common, missile, or aircraft) and item essentiality, will provide essentiality-related supply performance goals, and will be variable between DISCOMs.

The technique is expected to weight Class IX stockage and supply performance in the DISCOM heavily in favor of essential items and provide greatly improved ASL management data for the DISCOM commander. At the same time, the combat essential portion of the ASL is easily identified for storage in a mobile configuration. Evaluation results indicate that some improvement in supply performance for essential items and reductions in the overall cost, weight, and cube of the ASL will be experienced.

This effort is concerned with stockage in the Headquarters and Light Maintenance Company (A Company), the Aircraft Maintenance Company (B Company), and the Missile Support Company (H Company) of the divisional maintenance battalion. It does not address stockage in the Forward Support Companies (C, D & E Companies) or the Heavy Equipment Maintenance Company (F Company).

VARIABLE CLASS IX ASL ADD/RETAIN CRITERIA FOR DIVISION
SUPPORT COMMANDS (DISCOMs)
SUMMARY

1. INTRODUCTION. Present repair parts stockage policies are based upon peacetime demand history and do not systematically consider item essentiality in any way. As a result, Direct Support Unit (DSU) level ASLs contain many items which would not only be unnecessary in wartime but would be a positive hindrance to the mobility of the DSU and could result in destruction or capture of part or all of the division's Class IX ASL. The problem is further compounded by the fact that the ASL size required to reach the overall 80 percent demand accommodation goal specified by AR 710-2 normally far exceeds the ASL size goal of 5,000 lines for a divisional maintenance battalion, which is also specified by AR 710-2. Divisional Class IX ASL mobility capability is presently limited to 5,000 lines.

2. STATEMENT OF THE PROBLEM. To evaluate and provide recommendations relative to the suitability of a concept for establishing automated variable add/retain criteria for Class IX ASLs of DISCOMs and revised supply performance goals for DISCOM operations.

3. OBJECTIVES.

a. Evaluate the suitability of a concept for establishing automated variable add/retain stockage criteria (to include variability by essentiality code and by materiel category) for Class IX ASLs in DISCOMs.

b. Evaluate the feasibility of using the Army Master Data File (AMDF) essentiality codes in constructing a "Combat ASL" portion of the total ASL using variable stockage criteria. These criteria are to be based on the AMDF essentiality and subclass of supply (materiel category) coding.

c. Evaluate and compare the relative ASL supply performance measures after application of AR 710-2 stockage criteria and the proposed variable stockage criteria to the same demand history bases.

d. Evaluate and determine whether Department of the Army stockage policies and supply performance goals should differentiate between degrees of combat essentiality by materiel category, and if so, propose policy and system changes.

4. SCOPE. The evaluation consisted of an analytical simulation/modeling of 1 year's past demand history and 6 months of live data accumulated during the evaluation period for 5 divisional maintenance battalions. However, no input was available from the 1st Infantry Division for January 1979 due to that division's participation in REFORGER 79. The evaluation concentrated on determining and comparing the relative effects of the variable stockage criteria and performance goals and current AR 710-2 policies on the base ASLs with respect to demand accommodation and ASL turbulence, size, dollar value, weight and cube. The evaluation addressed aviation, missile, and common

materiel categories and the essentiality categories of: (1) essential and safety/legal and (2) nonessential. The evaluation addressed range rather than depth of stockage and did not address operational readiness aspects. Management intervention; e.g., command adds and deletes, was specifically excluded. Forward Support Company ASLs were not evaluated. A follow-on evaluation, which consisted of a 6-month field validation by the 1st Infantry Division, Ft Riley, KS, was conducted from 1 July - 31 December 1979. Results are at Appendix K.

5. METHODOLOGY.

a. The evaluation was conducted solely through the use of computer simulation techniques. Each of the 5 divisions provided a copy of its ASL and 12 months' demand history as of 31 Oct 78 for use as baseline data. The demand history was then processed through the DA ODCSLOG Stockage Criteria Model and the results were used to set the variable stockage criteria. The 12-month demand history was then used to remove manager intervention from the 31 Oct 78 baseline ASL and create control or "current" and test or "proposed" ASLs for each division. Each division then provided its most recent 12-month demand history every month for a 6-month period with the exceptions, noted in paragraph 4, above. This demand history was then processed against both control and test ASLs and items were added thereto and deleted therefrom in accordance with the stockage criteria. Performance measures included the following:

- (1) Demand accommodation.
- (2) ASL size.
- (3) ASL turbulence.
- (4) Total dollar value of RO.
- (5) Total RO weight.
- (6) Total RO cube.

b. Performance was calculated on a monthly basis. In addition, quarterly updates were provided to correspond to the DLOGS quarterly ASL update.

6. DISCUSSION.

a. Operational Conditions. The modern battlefield is a highly fluid environment in which not only combat units but combat support and even combat service support units must be prepared to move frequently. This requires that the divisional maintenance battalion keep the size of its Class IX ASL within manageable limits.

b. Current Status. The ASL movement and management capability of the divisional maintenance battalion is limited to an ASL size which is far

smaller than present-day ASLs, some of which approach 10,000 lines. It thus becomes necessary for the division to identify and segregate a "Combat ASL." Most, if not all, of the Active Army divisions have developed techniques to do this. These techniques are unique to the divisions that developed them. Some are automated, while others are manual; some use NORs demand history as a starting point, while others use the "warrant officer" approach. All of these approaches consume large quantities of manpower either in computer programing or in actual performance of the work. No two of these approaches are the same. This evaluation is an attempt to develop a standard automated technique for development of a Combat ASL utilizing the division's existing demand history base.

7. CONCLUSIONS.

a. The concept for establishing automated variable add/retain stockage criteria (to include variability by essentiality code and by materiel category) for Class IX ASLs in DISCOMs should be adopted by the Army for the following reasons:

(1) Supply performance for combat critical items carried on the ASL is generally better under the proposed variable stockage criteria than under the AR 710-2 stockage criteria and overall supply performance is not materially degraded.

(2) The ASL update and summary capability is greatly improved to provide both combat essentiality and dollar value information for the decision maker.

(3) The number of combat critical items qualifying for ASL stockage is greatly increased while the overall cost, weight, and cube of the demand supported portion of the ASL are significantly decreased.

(4) It provides for an automated capability to replace similar processes that are presently manually applied in many DISCOMs.

b. It is feasible to use and automate the application of the AMDF essentiality codes in constructing a "Combat ASL" portion of the total ASL using variable stockage criteria based on the AMDF essentiality and materiel category coding. Use of these codes for stockage policy decision making is also consistent with their use in secondary item war reserve selection IAW AR 11-11 and DOD Retail Inventory Management Stockage Policy (RIMSTOP) as set forth in DODD 4140.44, DODI 4140.45, and DODI 4140.46.

c. Department of the Army stockage policies and supply performance goals should differentiate between degrees of combat essentiality by materiel category. Proposed Changes to AR 710-2 are at Appendix J of this report.

8. RECOMMENDATIONS. That the concept of establishing automated variable Class IX ASL Addition/Retention criteria based on the AMDF essentiality and materiel category codes be adopted into US Army supply policies.

MAIN REPORT

CHAPTER 1

INTRODUCTION

1-1. STATEMENT OF THE PROBLEM. To evaluate and provide recommendations relative to the suitability of a concept for establishing variable add/retain criteria for Class IX ASLs in DISCOMs and revised supply performance goals for DISCOM operations.

1-2. BACKGROUND.

a. The modern mid- to high-intensity battlefield is a highly fluid environment in which not only combat units but combat support and even combat service support units must be prepared to move frequently. In addition, the accuracy and lethality of modern weapon systems engaged is higher than ever before. This situation is further exacerbated by the ever-increasing complexity of modern weapons systems. In this environment, nonessential and/or "cosmetic" maintenance tasks are either deferred or not performed. To perform its maintenance mission with the minimum of delay or backlog, the DISCOM must not only stock a list of repair parts, but must insure that it stocks those repair parts which are needed to perform essential maintenance functions; i.e., essential repair parts.

b. Present repair parts stockage policies throughout the Army are based on peacetime demand history and do not systematically consider item essentiality. This results in the ASL being encumbered with numerous non-essential or "nice to have" items which displace essential items and/or degrade the mobility of the ASL. This problem is further compounded by the fact that the ASL size required to reach the 80 percent demand accommodation goal specified by AR 710-2 normally far exceeds the ASL size goal of 5,000 lines for a divisional maintenance battalion, which is also specified by AR 710-2. ASLs of this magnitude far exceed the capability of the DISCOM to move them and may result in the destruction or capture of part or all of the DISCOM's Class IX stocks.

c. It has, therefore, become necessary for the Army to adapt its stockage policies and procedures in order to weight DSU-level stockage more heavily in favor of essential items. This approach uses the AMDF essentiality codes to identify an item as essential (to include safety/legal) or nonessential, and the AMDF subclass of supply (materiel category) to identify an item as being common, missile or aircraft-related. Proposed ASL addition/retention criteria are then established which are oriented toward attainment of specific supply performance goals. A detailed description of the criteria selection process is at Appendix G.

1-3. OBJECTIVES. The objectives of this study are to:

- a. Evaluate the suitability of a concept for establishing variable add/retain stockage criteria (to include variability by essentiality code and by materiel category) for Class IX ASLs in DISCOMs.
- b. Evaluate the feasibility of using the AMDF essentiality coding in constructing a "Combat ASL" portion of the total ASL using variable stockage criteria based on the AMDF essentiality and subclass of supply (materiel category) coding.
- c. Evaluate and compare the relative ASL supply performance measures after application of AR 710-2 procedures and the proposed variable stockage criteria to the same demand history bases.
- d. Evaluate and determine whether Department of the Army stockage policies and supply performance goals should differentiate between degrees of combat essentiality by materiel category and if so, to propose policy changes.

1-4. ASSUMPTIONS. For the purposes of this evaluation, it was assumed that:

- a. The "Stockage Criteria Model" received from DA ODCSLOG is valid. The validity of the "Stockage Criteria Model" is discussed at Appendix H of this report.
- b. The selected divisions will provide the required input data and their submissions will be accurate and timely.
- c. The divisions selected to provide input for the evaluation will operate on the DLOGS system for the duration of the evaluation.
- d. Sufficient computer time with appropriate priority will be provided to support the evaluation.
- e. The AMDF essentiality codes will provide accurate and complete data to support the variable stockage criteria concept.

1-5. SCOPE.

- a. The evaluation consisted of an analytical simulation/modeling of 1 year's past demand history and 6 months of live data accumulated during the evaluation period for 5 divisional maintenance battalions. However, no input was available from the 1st Infantry Division for January 1979 due to that division's participation in the REFORGER 79 exercise. The evaluation concentrated on determining and comparing the relative effects of the variable stockage criteria and performance goals and current AR 710-2 policies on the base ASLs with respect to demand accommodation and ASL size, turbulence, dollar value, weight, and cube. The evaluation addressed aviation, missile, and common materiel categories and the essentiality categories of:

(1) Essential and safety/legal.

(2) Nonessential.

b. The evaluation addressed range rather than depth of stockage and did not address operational readiness considerations. Management intervention; e.g., command adds and deletes, was specifically excluded. ASLs considered were the Headquarters and Light Maintenance Company, Aviation Intermediate Maintenance (AVIM) Company, and Missile Maintenance Company. ASLs for Forward Support Companies and Heavy Equipment Maintenance Companies were not evaluated.

c. A follow-on phase of the evaluation took the form of a field validation effort conducted by the 1st Infantry Division, Ft Riley, KS, from 1 July to 31 December 1979. The field validation report is at Appendix K.

1-6. THREAT.

a. Recently approved concepts and doctrine will change the characteristics of any future involvement in a conflict by Army forces. The recent reorganization of the Army corps and of combat service support in the communications zone, combined with such tactical concepts as winning the first battle, will drastically affect the force composition, logistical support of that force, method of commitment, and the organization of the battlefield. Structuring of forces, i.e., combat, combat support, and combat service support, is geared to engagement in mid-intensity conflict as described below.

b. Mid-intensity conflict could occur in either developing or developed countries. US forces are engaged in fluid and intense combat operations employing and facing sophisticated conventional weaponry of great accuracy and destructive power. Opposing forces strive for early and conclusive victories. Blocking and defensive positions are held with tenacity. The battlefield is an extremely lethal ground with high casualty rates on both sides. Supported with airlift and mechanized vehicles, forces possess the capability for mobility over wide frontages for maneuvering in the attack, mobile defense, or for tactical advantage. However, the forward edge of the battle area (FEBA) and operational areas are generally defined. Stockage of supplies in forward areas is selective and minimal in order to maintain mobility. Rear area stocks are similarly reduced and dispersed to minimize target advantage of the enemy. Heavy reliance is placed on rapid and frequent resupply of GS stocks from CONUS with expedited throughput to direct support level. Maintenance is largely limited to essential repair, recovery, or cannibalization of combat equipment. Essential repair parts are normally air delivered. Tactical mobility with forward and lateral movement of combat forces precludes establishment of any fixed support areas in the combat zone and only temporary and moveable support facilities will exist to the rear of the combat area. This level of conflict differs from high-intensity conflict basically from the standpoint that nuclear, biological, and chemical weapons are not employed in mid-intensity conflicts.

1-7. METHODOLOGY.

a. The evaluation was conducted through the use of computer simulation techniques. Each of the 5 test divisions provided a copy of its ASL (DLOGS Master Inventory Record File - File ID: X07AGK) and 12-months' demand history (DLOGS ASL Combined Summary File - File ID: X03AGK) as of 31 Oct 1978 for use as baseline data. The demand history was then processed through the DA ODCSLOG Stockage Criteria Model and the outputs used to set the variable stockage criteria. A detailed account of the rationale used in setting the variable stockage criteria is at Appendix G of this report. The 31 Oct ASL and the 12-month demand history were then compared in order to remove manager intervention from the baseline ASL using the current AR 710-2 Stockage Criteria to create the "current" or "control" ASL and the proposed variable stockage criteria to create the "proposed" or "test" ASL. Items which were not on the ASL but met the add criterion were added to the ASL, while items which were on the ASL but did not meet the retention criterion were deleted from the ASL.

b. Each division then provided its most recent 12-month demand history every month for a 6-month period with the exceptions noted in paragraph 1-5, above. Beginning in December, the demand history file provided was the DLOGS Demand History Summary File (File ID: X05AGK). This demand history was then processed against the control ASL using the current stockage criteria and against the test ASL using the proposed variable stockage criteria. Items were added to, and deleted from, both ASLs in accordance with the 2 sets of stockage criteria and performance statistics accumulated.

c. Requisitioning Objectives (RO) were computed to allow development of comparative ASL dollar value, weight, and cube statistics. RO computation logic was as follows:

(1) Reorder Point.

(a) CONUS divisions (1st Infantry, 2d Armored, and 82d Airborne) - 30 Days of Supply (DOS).

(b) European divisions (3d Armored and 3d Infantry) - 45 DOS.

(2) Operating Level (OL).

(a) If unit price is a standard price, the following Economic Order Quantity (EOQ) formula will be used:

$$OL = 4.75 \sqrt{\frac{D}{P}}$$

where D = annual demand quantity and
P = unit price of the item in dollars and cents.
DLOGS OLs are computed by $OL = \sqrt{\frac{D}{P}}$ but DS4 will use the other formula.

$$\text{If } 4.75 \sqrt{\frac{D}{P}} > D, OL = D.$$

(b) If unit price is an estimated price:

1. CONUS divisions - 15 DOS.
2. European divisions - 30 DOS.
- (3) $RO = OL + ROP$.

d. The following performance measures were reported by essentiality code/materiel category combination for the demand supported ASLs for both current and proposed stockage criteria on a monthly basis:

- (1) Demand accommodation--current month and cumulative.
- (2) ASL size.
- (3) ASL turbulence--current month and cumulative.
- (4) Dollar value of RO.
- (5) RO weight.
- (6) RO cube.

In addition, quarterly updates were provided to correspond to the DLOGS quarterly ASL update.

e. The 5 divisions also provided monthly reports of actual supply performance for the duration of the evaluation period in order to provide a basis for comparison.

CHAPTER 2

DISCUSSION

2-1. STOCKAGE REQUIREMENTS. The primary wartime mission of the divisional maintenance battalion is to repair damaged items of equipment and return them to the user in the shortest possible time. In order to perform this mission, the battalion must stock those repair parts for which sufficient demand exists. This stockage must differentiate between essential and nonessential items so that nonessential items are not stocked at the expense of essential items; e.g., so that the battalion would not stock truck fenders instead of stocking track pins or gun tubes. The situation is further complicated by the fact that the battalion and DISCOM have the capability to manage and move only a limited number of lines.

2-2. CURRENT STOCKAGE POLICIES. Present AR 710-2 stockage policies and performance goals do not systematically consider item essentiality in any way and are based upon peacetime demand history. As a result, DISCOM Class IX ASLs are encumbered with numerous items which are needed in peacetime or in garrison but are not combat essential by any stretch of the imagination. Failure to stock the correct items for combat will seriously impair the maintenance mission of the DISCOM, while encumbering the ASL with numerous nonessential items. In addition, the ASL size required to reach the demand accommodation goals specified in AR 710-2 far exceeds the ASL size goals which are also specified in AR 710-2. Current AR 710-2 performance goals are set forth in figure 2-1. As an example of the problem, figure 2-2 shows reported actual supply performance in terms of demand accommodation and ASL size for the 5 test divisions during the period 1 November 1978 through 30 April 1979.

2-3. PROPOSED STOCKAGE POLICIES. The proposed policy allows for variable supply performance goals by essentiality code and variable ASL add/retain criteria by essentiality code and materiel category in order to weight stockage more heavily in favor of essential items. The proposed supply performance goals are set forth in figure 2-3. Proposed ASL add/retain criteria for the 5 test divisions are displayed at figure 2-4. The proposed criteria vary from one division to the next because they are performance-oriented and demand streams vary from one division to the next. It should be noted that these criteria are proposed only for the purposes of this evaluation and are not necessarily those which would be proposed for actual field use for those same divisions. A detailed discussion of the rationale for selection of the variable stockage criteria is at Appendix G of this report.

**Current Supply Performance Goals
(AR 710-2)**

<u>Performance Measure</u>	<u>Goal</u>	<u>Management Level</u>
Demand Accommodation	80%	75% - 85%
ASL Size	5,000 lines	4,000 - 6,000 lines
ASL Turbulence	21%	27%

Figure 2-1

Reported Actual Supply Performance

<u>Division</u>	Demand Accommodation (%)			ASL Size (Lines)		
	<u>High</u>	<u>Low</u>	<u>Mean</u>	<u>High</u>	<u>Low</u>	<u>Mean</u>
1st Infantry	80.6	71.9	76.4	7,982	7,281	7,683
2d Armored	73.2	69.2	71.2	8,137	6,839	7,493
3d Armored	76.9	68.2	71.6	9,963	9,136	9,622
3d Infantry	85.3	72.1	78.0	9,473	7,257	8,610
82d Airborne	64.8	54.7	61.1	6,517	5,516	6,217

As of 31 October 1979, the following percentages of the divisional ASLs were demand supported.

<u>Division</u>	<u>Percent Demand Supported</u>
1st Infantry	65.8
2d Armored	47.8 See note below.
3d Armored	83.8
3d Infantry	79.6
82d Airborne	<u>87.9</u>
Overall	73.4

Note: 2d Armored Division carries its Combat ASL lines under Stockage List Code "S" although they are demand supported. This drastically reduces the percentage of demand supported lines on the ASL.

Figure 2-2

**Proposed Supply Performance Goals
(for inclusion in AR 710-2)**

<u>Performance Measure</u>	<u>Goal</u>	<u>Management Level</u>
Demand Accommodation		
Essential Items	80%	75% - 85%
Nonessential Items	50%	45% - 55%
ASL Size (demand supported lines only)		
Light Divisions (Airborne & Infantry)	5,500 lines	4,500 - 6,500 lines
Heavy Divisions (Armored & Mechanized)	6,500 lines	5,500 - 7,500 lines
ASL Turbulence	21%	27%

Figure 2-3

Proposed ASL Add/Retain Criteria

<u>Division</u>	<u>Common</u>	<u>Missile</u>	<u>Aircraft</u>
<u>Essential</u>			
1st Infantry	5/3	3/2	4/1
2d Armored	5/3	3/1	3/1
3d Armored	4/3	1/1	3/1
3d Infantry	5/3	1/1	4/2
82d Airborne	4/2	2/1	5/2
<u>Nonessential</u>			
1st Infantry	17/9	6/1	6/3
2d Armored	18/12	8/3	6/1
3d Armored	14/8	5/1	5/1
3d Infantry	18/11	6/1	6/1
82d Airborne	16/9	6/1	6/1

NOTE: Current policy for all divisions except 82d Airborne is 6/3 for common items and 3/1 for missile and aircraft regardless of essentiality. 82d Airborne uses the above criteria for essential items. Criteria for nonessential items are 11/3 for common and 7/1 for missile and aircraft.

Figure 2-4

2-4. SIMULATION RESULTS. Results of the 6-month simulation effort for the five test divisions are presented below.

a. Cumulative Demand Accommodation (%). As of the end of the 6-month simulation period, overall cumulative demand accommodation for essential items was between one and four percent higher under the proposed criteria whereas for nonessential items, it was between 6 percent and 16 percent lower under the proposed criteria. Cumulative demand accommodation for the five divisions and weighted overall average is presented by materiel category and essentiality for both current and proposed criteria at figures 2-5 through 2-10.

b. ASL Size. At the end of the 6-month simulation period, total essential ASL sizes for essential items are between 346 and 1,355 lines higher under the proposed than under the current criteria, whereas total ASL size for nonessential items was between 428 and 2,488 lines less under the proposed criteria. Total ASL size was between 627 lines greater and 2,025 lines less under the proposed criteria. ASL sizes for the five divisions and overall size are presented by materiel category and essentiality for both current and proposed criteria at figures 2-11 through 2-16. Increase in overall number of lines for the 82d Airborne Division is attributed to the fact that the division is currently using variable add/retain criteria, so that the reduction in nonessential lines is considerably less than for the other divisions.

c. ASL Turbulence. Cumulative ASL turbulence values for the 6-month simulation period, if extrapolated to portray a 12-month period, far exceed the level of 5-10 percent for the proposed criteria, which was predicted by the DA ODCSLOG Stockage Criteria Model (SCM). This large difference between the predicted and actual turbulence was caused by the difference in the manner in which the SCM arrives at turbulence versus the method employed in the simulation. In both cases, turbulence was defined in the following manner:

$$\text{Percent turbulence} = \frac{(\text{Number of ASL additions} + \text{Number of ASL deletions})}{\text{Initial ASL Size}} \times 100$$

The SCM assumes a review period of 1 year, i.e., that the ASL update is only performed once a year. Using probabilities, the number of additions and deletions was calculated and divided by the ASL size only once in order to conform to the annual update. In the simulation, however, each month's additions and deletions were added to those of previous months and the sum divided by the baseline ASL size. This process results over time in a series of fractions with the same denominator, but constantly increasing numerators and, therefore, in constantly increasing turbulence percentages. Where monthly ASL updates are performed, if an item were deleted from the ASL in one month and reinstated to the ASL in a later month, it would increase the turbulence count by 2; whereas, if the ASL were being reviewed on an annual basis, the net effect would be zero. It is for the above reasons that the DA ODCSLOG Stockage Criteria Model is not a good predictor of ASL turbulence. ASL turbulence results for the five divisions and overall, extrapolated to portray a 12-month period, are portrayed below at figures 2-17 through 2-22.

Cumulative Demand Accommodation (%)

1st Infantry Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	85	86	+ 1
Missile	69	66	- 3
Aircraft	<u>73</u>	<u>69</u>	<u>- 4</u>
Overall	84	86	+ 2
<u>Nonessential</u>			
Common	81	67	-14
Missile	89	82	- 7
Aircraft	<u>50</u>	<u>31</u>	<u>-19</u>
Overall	81	67	-14
TOTAL	83	78	- 5

Figure 2-5

Cumulative Demand Accommodation (%)

2d Armored Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	86	87	+ 1
Missile	72	72	0
Aircraft	<u>77</u>	<u>77</u>	<u>0</u>
Overall	85	87	+ 2
<u>Nonessential</u>			
Common	84	68	-16
Missile	64	47	-17
Aircraft	<u>71</u>	<u>36</u>	<u>-35</u>
Overall	84	68	-16
TOTAL	85	78	- 7

Figure 2-6

Cumulative Demand Accommodation (%)

3d Armored Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	84	88	+ 4
Missile	80	100	+20
Aircraft	<u>84</u>	<u>84</u>	<u>0</u>
Overall	84	88	+ 4
<u>Nonessential</u>			
Common	78	66	-12
Missile	45	27	-18
Aircraft	<u>65</u>	<u>40</u>	<u>-25</u>
Overall	78	66	-12
TOTAL	82	79	- 3

Figure 2-7

Cumulative Demand Accommodation (%)

3d Infantry Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	87	89	+ 2
Missile	35	100	+65
Aircraft	<u>82</u>	<u>74</u>	<u>- 8</u>
Overall	87	88	+ 1
<u>Nonessential</u>			
Common	84	69	-15
Missile	75	63	-12
Aircraft	<u>48</u>	<u>29</u>	<u>-19</u>
Overall	84	68	-16
TOTAL	86	80	- 6

Figure 2-8

Cumulative Demand Accommodation (%)

82d Airborne Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	76	82	+ 6
Missile	73	84	+11
Aircraft	<u>84</u>	<u>75</u>	<u>- 9</u>
Overall	77	81	+ 4
<u>Nonessential</u>			
Common	71	65	- 6
Missile	30	30	0
Aircraft	<u>22</u>	<u>25</u>	<u>+ 3</u>
Overall	70	64	- 6
TOTAL	74	74	0

Figure 2-9

Cumulative Demand Accommodation (%)

<u>Overall for 5 Division Slice</u>			
	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	84	86	+ 2
Missile	66	84	+18
Aircraft	<u>80</u>	<u>76</u>	<u>- 4</u>
Overall	83	86	+ 3
<u>Nonessential</u>			
Common	80	67	-13
Missile	61	50	-11
Aircraft	<u>51</u>	<u>32</u>	<u>-19</u>
Overall	79	67	-12
TOTAL	82	78	- 4

Figure 2-10

ASL Size (number of lines)

	<u>1st Infantry Division</u>		
	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	4,032	4,448	+ 416
Missile	139	124	- 15
Aircraft	<u>507</u>	<u>452</u>	<u>- 55</u>
Overall	4,678	5,024	+ 346
<u>Nonessential</u>			
Common	3,024	1,470	- 1,554
Missile	22	12	- 10
Aircraft	<u>26</u>	<u>12</u>	<u>- 14</u>
Overall	3,072	1,494	- 1,578
TOTAL	7,750	6,518	- 1,232

Figure 2-11

ASL Size (number of lines)

2d Armored Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	3,850	4,320	+ 470
Missile	184	184	0
Aircraft	<u>379</u>	<u>379</u>	<u>0</u>
Total	4,413	4,883	+ 470
<u>Nonessential</u>			
Common	3,538	1,361	-2,177
Missile	96	37	- 59
Aircraft	<u>20</u>	<u>10</u>	<u>- 10</u>
Total	3,654	1,408	-2,246
OVERALL	8,067	6,291	-1,776

Figure 2-12

ASL Size (number of lines)

3d Armored Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	4,079	5,369	+1,290
Missile	62	127	+ 65
Aircraft	<u>846</u>	<u>846</u>	<u>0</u>
Total	4,987	6,342	+1,355
<u>Nonessential</u>			
Common	2,610	1,216	-1,394
Missile	74	53	- 21
Aircraft	<u>54</u>	<u>36</u>	<u>- 18</u>
Total	2,738	1,305	-1,433
OVERALL	7,725	7,647	- 78

Figure 2-13

ASL Size (number of lines)

3d Infantry Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	4,680	5,253	+ 573
Missile	75	180	+ 105
Aircraft	<u>820</u>	<u>605</u>	<u>- 215</u>
Overall	5,575	6,038	+ 463
<u>Nonessential</u>			
Common	4,015	1,577	-2,438
Missile	80	53	- 27
Aircraft	<u>63</u>	<u>40</u>	<u>- 23</u>
Overall	4,158	1,670	-2,488
TOTAL	9,733	7,708	-2,025

Figure 2-14

ASL Size (number of lines)

82d Airborne Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common Missile Aircraft	2,996 231 <u>1,082</u>	4,284 308 <u>772</u>	+1,288 + 77 - 310
Total	4,309	5,364	+1,055
<u>Nonessential</u>			
Common Missile Aircraft	1,241 17 <u>26</u>	808 17 <u>31</u>	- 433 0 + 5
Total	1,284	856	- 428
OVERALL	5,593	6,220	+ 627

Figure 2-15

ASL Size (number of lines)

Total for 5 Division Slice

	<u>Current Criteria*</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	19,637	23,674	+4,037
Missile	691	923	+ 232
Aircraft	<u>3,634</u>	<u>3,054</u>	- 580
Total	23,962	27,651	+3,689
<u>Nonessential</u>			
Common	14,428	6,432	-7,996
Missile	289	172	- 117
Aircraft	<u>189</u>	<u>129</u>	- 60
Total	14,906	6,733	-8,173
OVERALL	38,868	34,384	-4,484

* It should be noted that under Current Criteria, ASL size is not constrained to conform to the limits set in AR 710-2. Total Actual ASL sizes reported by the 5 Divisions as of 30 April 1979, the end of the simulation period, were as follows:

Common	29,081
Missile	4,622
Aircraft	<u>3,938</u>
Total	37,641

It was not possible to break out actual ASLs by essentiality codes in DLOGS.

Figure 2-16

Cumulative ASL Turbulence (%)

1st Infantry Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	32	36	+ 4
Missile	56	66	+ 10
Aircraft	<u>56</u>	<u>38</u>	- 18
Total	36	38	+ 2
<u>Nonessential</u>			
Common	38	16	- 22
Missile	52	54	+ 2
Aircraft	<u>78</u>	<u>14</u>	<u>- 64</u>
Total	38	16	- 22
OVERALL	36	32	- 4

Figure 2-17

Cumulative ASL Turbulence (%)

2d Armored Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	58	60	+ 2
Missile	86	86	0
Aircraft	<u>52</u>	<u>52</u>	<u>0</u>
Total	58	60	+ 2
<u>Nonessential</u>			
Common	52	34	- 18
Missile	40	50	+ 10
Aircraft	<u>60</u>	<u>256</u>	<u>+196</u>
Total	52	36	- 16
OVERALL	56	54	- 2

Figure 2-18

Cumulative ASL Turbulence (%)

3d Armored Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	68	78	+ 10
Missile	46	88	+ 42
Aircraft	<u>46</u>	<u>46</u>	<u>0</u>
Total	64	74	+ 10
<u>Nonessential</u>			
Common	84	70	- 14
Missile	114	48	- 66
Aircraft	<u>116</u>	<u>58</u>	<u>- 58</u>
Total	86	68	- 18
OVERALL	72	72	0

Figure 2-19

Cumulative ASL Turbulence (%)

3d Infantry Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	58	66	+ 8
Missile	72	86	+ 14
Aircraft	<u>70</u>	<u>82</u>	<u>+ 12</u>
Overall	60	68	+ 8
<u>Nonessential</u>			
Common	70	62	- 8
Missile	100	62	- 38
Aircraft	<u>128</u>	<u>80</u>	<u>- 48</u>
Overall	70	62	- 8
TOTAL	64	68	+ 4

Figure 2-20

Cumulative ASL Turbulence (%)

82d Airborne Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	46	56	+ 10
Missile	72	76	+ 4
Aircraft	<u>40</u>	<u>40</u>	<u>0</u>
Total	46	54	+ 8
<u>Nonessential</u>			
Common	30	34	+ 4
Missile	144	92	- 52
Aircraft	<u>72</u>	<u>88</u>	<u>+ 16</u>
Total	32	36	+ 4
OVERALL	42	52	+ 10

Figure 2-21

Cumulative ASL Turbulence (%)

Overall for 5 Division Slice

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	52	59	+ 7
Missile	66	80	+ 14
Aircraft	<u>53</u>	<u>52</u>	<u>- 1</u>
Total	53	59	+ 6
<u>Nonessential</u>			
Common	55	43	- 12
Missile	80	61	- 19
Aircraft	<u>11</u>	<u>99</u>	<u>+ 8</u>
Total	56	44	- 12
OVERALL	54	56	+ 2

NOTE: Actual ASL turbulences exceeded those predicted by the DA ODCSLOG Stockage Criteria Model for the reasons outlined in paragraph 2-4c above.

Figure 2-22

d. Dollar Value of RO. In the cases of the 1st Infantry, 2d Armored and 3d Infantry Divisions, dollar value of the RO was substantially less under proposed criteria than under the current criteria, whereas the reverse was true for the 3d Armored and 82d Airborne Divisions. Dollar value of ROs for all five divisions and in total as of the end of the 6-month simulation period are depicted below at figures 2-23 through 2-28.

e. Weight of RO. ASL weight data obtained from the simulation phase of the evaluation are highly suspect and are therefore not included. ASL weight data from the field test are deemed accurate and are found in Appendix K, Annex IX.

f. Cube of RO. ASL cube data obtained from the simulation phase of the evaluation are highly suspect and are therefore not included. ASL cube data from the field validation are deemed accurate and are found at Appendix K, Annex X.

Dollar Value of RO (whole dollars)

1st Infantry Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	\$ 717,178	\$ 754,802	+\$ 37,624
Missile	203,365	177,021	- 26,344
Aircraft	<u>137,571</u>	<u>128,679</u>	<u>- 8,892</u>
Overall	1,058,114	1,060,502	+ 2,388
<u>Nonessential</u>			
Common	346,202	227,490	- 118,712
Missile	9,281	7,718	- 1,563
Aircraft	<u>8,755</u>	<u>7,191</u>	<u>- 1,564</u>
Overall	364,238	242,399	- 121,839
Total	\$1,422,352	\$1,302,901	-\$119,451

Figure 2-23

Dollar Value of RO (whole dollars)

2d Armored Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	\$1,386,493	\$1,453,441	+\$ 66,948
Missile	201,911	201,911	0
Aircraft	<u>329,483</u>	<u>329,483</u>	<u>0</u>
Overall	1,917,887	1,984,835	+ 66,948
<u>Nonessential</u>			
Common	635,726	287,760	- 347,966
Missile	24,811	2,253	- 22,558
Aircraft	<u>2,246</u>	<u>1,331</u>	<u>- 915</u>
Overall	662,783	291,344	- 371,439
Total	\$2,580,670	\$2,276,179	-\$304,491

Figure 2-24

Dollar Value of RO (whole dollars)

3d Armored Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	\$1,328,860	\$1,490,935	+\$162,075
Missile	153,471	214,732	+ 61,261
Aircraft	<u>387,803</u>	<u>387,803</u>	<u>0</u>
Overall	1,870,134	2,093,470	+ 223,336
<u>Nonessential</u>			
Common	529,558	361,307	- 168,251
Missile	11,519	8,178	- 3,341
Aircraft	<u>15,869</u>	<u>5,856</u>	<u>- 10,013</u>
Overall	556,946	375,341	- 181,605
Total	\$2,427,080	\$2,468,811	+\$ 41,731

Figure 2-25

Dollar Value of RO (whole dollars)

3d Infantry Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	\$1,652,084	\$1,727,814	+\$ 75,730
Missile	197,730	407,921	+ 210,191
Aircraft	<u>317,875</u>	<u>223,524</u>	<u>- 94,351</u>
Overall	2,167,689	2,359,259	+ 191,570
<u>Nonessential</u>			
Common	728,575	465,311	- 263,264
Missile	16,266	10,255	- 6,011
Aircraft	<u>12,459</u>	<u>5,933</u>	<u>- 6,526</u>
Overall	757,300	481,499	- 275,801
TOTAL	\$2,924,989	\$2,840,758	-\$ 84,231

Figure 2-26

Dollar Value of RO (whole dollars)

82d Airborne Division

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	\$ 547,470	\$ 783,484	+\$236,014
Missile	401,452	420,148	+ 18,696
Aircraft	<u>529,697</u>	<u>396,965</u>	<u>- 132,732</u>
Overall	1,478,619	1,600,597	+ 121,978
<u>Nonessential</u>			
Common	226,153	183,356	- 42,797
Missile	13,262	13,262	0
Aircraft	<u>8,224</u>	<u>9,873</u>	<u>+ 1,649</u>
Overall	247,639	206,491	- 41,148
Total	\$1,726,258	\$1,807,088	+\$ 80,830

Figure 2-27

Dollar Value of RO (whole dollars)

Total for 5 Division Slice

	<u>Current Criteria</u>	<u>Proposed Criteria</u>	<u>Difference</u>
<u>Essential</u>			
Common	\$5,632,085	\$6,210,476	+\$ 578,391
Missile	1,157,929	1,421,733	+ 263,804
Aircraft	<u>1,702,429</u>	<u>1,466,454</u>	<u>- 235,975</u>
Overall	8,492,443	9,098,663	+ 606,220
<u>Nonessential</u>			
Common	2,526,214	1,525,524	- 1,000,690
Missile	75,139	41,666	- 33,473
Aircraft	<u>47,553</u>	<u>30,184</u>	<u>- 17,369</u>
Overall	2,648,906	1,597,374	- 1,051,532
TOTAL	\$11,141,349	\$10,696,037	-\$ 445,312

Figure 2-28

CHAPTER 3

FINDINGS

3-1. The concept for establishing automated variable Class IX ASL add/retain stockage criteria (to include variability by essentiality code and materiel category) should be adopted by the Army for the following reasons:

- a. Supply performance for combat critical items carried on the ASL is generally better under the proposed variable stockage criteria than under the AR 710-2 stockage criteria and overall supply performance is not materially degraded.
- b. The ASL update and summary capability is greatly improved to provide both combat essentiality and dollar value information for the decision maker.
- c. The number of combat critical items qualifying for ASL stockage is greatly increased while the overall cost of the demand supported portion of the ASL is significantly decreased.
- d. It provides for an automated capability to replace similar processes that are presently manually applied in many DISCOMs.

3-2. It is feasible to use and automate the application of the Army Master Data File (AMDF) essentiality coding in constructing and identifying a "Combat ASL" portion of the total ASL using variable stockage criteria based on the AMDF essentiality and subclass of supply (materiel category) coding. Use of these codes for stockage policy decision making is also consistent with their use in secondary item war reserve selection IAW AR 11-11 and the DOD Retail Inventory Management Stockage Policy (RIMSTOP) as set forth in DODD 4140.44, DODI 4140.45, and DODI 4140.46.

3-3. Relative ASL supply performance measures were evaluated and compared after application of AR 710-2 stockage criteria and proposed variable stockage criteria to the same demand history bases. Results are given in Chapter 2 and annexes to Appendix B. Summary of results follows:

- a. Cumulative Demand Accommodation.
 - (1) Essential Items: Performance under proposed criteria is three percent higher overall.
 - (2) Nonessential Items: Performance under proposed criteria is twelve percent lower overall.
 - (3) Total: Performance under proposed criteria is four percent lower overall.

b. ASL Size.

(1) Essential Items: Total ASL size for the 5-division slice was 3,689 lines greater for proposed criteria.

(2) Nonessential Items: Total ASL size for the 5-division slice was 8,173 lines smaller under the proposed criteria.

(3) Overall: Total ASL size for the 5-division slice was 4,484 lines smaller under the proposed criteria.

c. ASL Turbulence. The factors outlined in paragraph 2-4c caused ASL turbulence values to far exceed those predicted by the DA ODCSLOG Stockage Criteria Model.

(1) Essential Items: Total turbulence for the 5-division slice was 6 percent greater under the proposed criteria.

(2) Nonessential Items: Total ASL turbulence for the 5-division slice was 12 percent less under the proposed criteria.

(3) Overall: Total ASL turbulence for the 5-division slice was 2 percent greater under the proposed criteria.

d. Dollar Value of RO.

(1) Essential Items: Total value of RO was \$606,220 greater under proposed criteria for the 5-division slice.

(2) Nonessential Items: Total value of RO was \$1,051,532 less under proposed criteria for the 5-division slice.

(3) Overall: Total value of RO was \$445,312 less under proposed criteria for the 5-division slice.

e. Comparison of relative ASL supply performance measures unequivocally favors adoption of the proposed policy.

3-4. Department of the Army stockage policies and supply performance goals should differentiate between degrees of combat essentiality by materiel category. Proposed policy changes are in Chapter 4 and Appendix J to this report.

MAIN REPORT

CHAPTER 4

RECOMMENDATIONS

Based on the findings of this study and results of the field validation test of the concept as set forth in Chapter 3 and Appendix K, the following recommendations are made.

4-1. That the concept for establishing automated variable Class IX ASL stockage criteria (to include variability by essentiality code and materiel category) be adopted for use in DISCOMs.

4-2. That the Army Master Data File (AMDF) essentiality coding be used in constructing and identifying a "Combat ASL" portion of the total ASL using variable stockage criteria based on the AMDF essentiality and subclass of supply (materiel category) coding.

4-3. That Department of the Army stockage policies and supply performance goals be modified to differentiate between degrees of combat essentiality by materiel category.

a. Stockage policies in Chapter 3, AR 710-2 should be changed as follows:

(1) Current Criteria:

(a) Common items = 6 demands in 360 days to add and 3 demands in 360 days to retain (6/3).

(b) Missile items = 3/1.

(c) Aircraft items = 3/1.

Current criteria do not differentiate between degrees of essentiality.

(2) Proposed Criteria.

Variable by essentiality code and materiel category and from division-to-division.

b. Supply performance goals in Chapter 7, AR 710-2 should be changed as follows:

	<u>GOAL</u>	<u>MANAGEMENT LEVEL</u>
(1) Demand Accommodation (%):		
(a) Current policy: (applies to all items)	80%	75 - 85%
(b) Proposed policy:		
(1) Essential Items:	80%	75 - 85%
(2) Nonessential Items:	50%	45 - 55%
(3) ASL Size (Number of Lines).		
(a) Current policy (includes all ASL lines):	5,000 lines	4,000 - 6,000 lines
(b) Proposed policy (demand supported lines only):		
a. Light divisions (air- borne and infantry):	5,500 lines	4,500 - 6,500 lines
b. Heavy divisions (mech infantry and armor):	6,500 lines	5,500 - 7,500 lines
c. Draft change to AR 710-2 is at Appendix J of this report.		

APPENDIX A
EVALUATION DIRECTIVE

NOTE: There is no formal evaluation directive for this evaluation. Tasking was provided by message HQDA (DALO-SMS), 241915Z JUL 78, which is at pages A-2 thru A-4. The evaluation plan follows, beginning on page A-5.

ROUTINE

PT 00016 206/C119Z

LOGC
PAGE 01

CC A1 I1 DF A1 I1 SD A1 I1 FE A2 I2 CM A4 I1 TSA A1 I1 SUPVR
DA A1 I1 LG A2 I2 ----- CH A1 I1 HC A1 I1 ALMC A3 I3 M/R
OI A1 I1 DON A1 I1 AG A1 I1 PM A3 I3 OMS (13) OCE A1 I1
DC A3 I3 SC A2 I2 SGS A1 I1 CP A1 I1 CIC (11) CGC A1 I1
SE A1 I1 BS A2 I2 PAO A1 I1 EE A1 I1 LOGC A3 I3 SEFO A1 I1
WE A1 I1 AC A1 I1 IG A1 I1 24G A1 I1 ARG A1 I1 KAH/MD/GEN A6 T
SP A1 I1 DE A1 I1 DPCA A4 I4 FM A1 I1 ACC/CE A1 I1 CGF A4 (14)
DI A1 I1 JA A1 I1 DIO A2 I1 IS A2 I2 FP A2 I2 ACPP A1 I1
COE A1 I1 ADS/DA A2 I2 PTS A3 I3 JA A1 I1 FH A2 I2 CIC A1 I1
RTTUZYUW RUEADWD0213 206C113-UUUU--RUEOAGE RUEOAGA.

ZNR JUUUU

R 241915Z JUL 78

FM DA WASHDC//DALC-SMS//

TO RUCLHTS/CDR FORSCOM FT MCPHERSON GA//AFLG-SMS//

RUEOAGE/CDR USALOGC FT LEE VA//ATCL-CFM//

INFO RUCLIAIA/CDR TRADOC FT MONROE VA//ATCD-S/ATLG-S//

RUEOAGA/CMDT QM SCHOOL FT LEE VA//ATSM-CD//

RUFDAAA/CINCUSAREUR HEIDELBERG GER//AEAGD-SM//

BT

UNCLAS

SUBJECT: COMBAT AUTHORIZED STOCKAGE LISTS (ASL'S)

A. BRIEFING AT HQ FORSCOM, 12 JULY 1978, SAB.

B. LETTER, USALC (ATCL-CFM), 17 JUL 78, SAB (NOTAR).

TWO PART MESSAGE

PART I TO ALL

1. DURING REFERENCE A, DEPUTY CG, USALOGC, BRIEFED HQ FORSCOM STAFF REPRESENTATIVES ON A PROPOSED METHOD TO DEVELOP AUTHORIZED STOCKAGE LISTS (ASL'S) FOR *AR.

2. THE PROPOSAL WAS WELL RECEIVED AND COINCIDES WITH ON-GOING

ROUTINE

A-2

ROUTINE

FORSOM INITIATIVES. IT IS EXPECTED TO PROVIDE A VARIABLE STOCKAGE POLICY CONSIDERING ITEM ESSENTIALITY, ASL MOBILITY, COSTS AND SUPPLY

PAGE 2 RUEADWDG0213 UNCLAS

PERFORMANCE. THE PROPOSAL MUST BE THOROUGHLY EXAMINED BEFORE IT CAN BE APPLIED ARMY-WIDE. THE LOG CENTER IS ASSIGNED RESPONSIBILITY FOR THE FINAL DEVELOPMENT, DOCUMENTATION, EVALUATION, AND FIELDING OF THE PROPOSAL. CONSEQUENTLY, THE FOLLOWING TASKINGS ARE PROVIDED:

A. USALOGC WILL DEVELOP AN EVALUATION PLAN FOR PRESENTATION AT A JOINT IN-PROCESS REVIEW (IPR) FOR DA AND FORSCOM BY 15 SEP 78 AND CONDUCT AN INFORMAL ASSESSMENT OF THE COMBAT ASL PROPOSAL. FOR PLANNING PURPOSES, TARGET DATE FOR COMPLETION OF THE TOTAL PROJECT IS 1 APRIL 1979.

B. FORSCOM WILL RECOMMEND EVALUATION SITES AND UNITS TO PARTICIPATE TO HQ DA AND USALOGC AT THE SEPTEMBER IPR.

3. DIRECT COORDINATION IS AUTHORIZED BETWEEN USALOGC AND FORSCOM.

4. THE SUPPORT AND COOPERATION OF USALOGC AND FORSCOM IN THIS IMPORTANT EFFORT IS GREATLY APPRECIATED.

5. DALO-SMS CONTACTS ARE LTC EDWARD J. HOSPCAR AND MR. WALTER E. PELKNAP, AUTOVON 225-0859/0760.

PART II TO USALC

6. IN RESPONSE TO REF B, THE PROPOSED AVERAGE ISSUE PRIORITY DESIGNATOR BASED ASL STOCKAGE CRITERIA TABLES IN CHARGE 5 TO AR 710-2 WILL BE RESTRICTED TO AUTOMATED INTERMEDIATE LEVEL APPLICATION.

ROUTINE

A-3

ROUTINE

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THE SPECIFIC WORDING OF THE PROPOSED DSU STOCKAGE CRITERIA POLICY
WILL BE FORWARDED BY SEPARATE CORRESPONDENCE.

BT

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A-4

ROUTINE

EVALUATION PLAN

Variable ASL Add/Retain Policy for Division Support Commands

1. PURPOSE. To evaluate and provide recommendations relative to the suitability of a concept for establishing variable add/retain criteria for Class IX authorized stockage lists (ASLs) of division support commands (DISCOMs) and revised supply performance goals for DISCOM operations.

2. REFERENCES. See inclosure 1.

3. TERMS OF REFERENCE.

a. Problem. AR 710-2, Materiel Management for Using Units, Supply Units, and Installations, prescribes supply performance measures and goals for supply activities. There is no differentiation between degrees of combat essentiality by commodity group in performance measures or stockage policies. Additionally, AR 710-2 prescribes a demand-based stockage policy which does not consider item essentiality in stockage eligibility determinations. Experience has shown that adherence to AR 710-2 procedures has not allowed DISCOMs to meet the supply performance goals of that regulation.

b. Impact of the Problem. Because of the AR 710-2 policies and goals, units with a combat service support mission are usually unable to maintain an ASL which consists primarily of items essential for support in combat and for which they can provide mobility. In other words, the ASLs are based on peacetime demands which may justify stockage of "nice-to-have" nonessential items while combat essential items are not demand supported for stockage. Compounding the problem, the size of the ASL required to achieve the 80% demand accommodation goal of AR 710-2 using the prescribed policies normally far exceeds the ASL size goal of 5,000 lines for a divisional maintenance battalion. This causes a significant mobility problem for the division. Therefore, if a division maintenance battalion were required to provide combat service support (CSS using present stockage policies, it would find itself in a situation where it had too many of the wrong items to move. Just having the wrong items on an ASL would be extremely detrimental to the supported force in the critical initial stages of combat. In addition, having more items than the DSU can move would hamper mobility in a fast-moving combat situation to such an extent that it might well result in destruction/capture of part or all of the DSU combat-essential stocks.

c. Objectives.

(1) To evaluate the suitability of a concept for establishing variable add/retain stockage criteria (to include variability by essentiality code and by materiel category) for Class IX ASLs in DISCOMs.

(2) To evaluate the feasibility of using the Army Master Data File (AMDF) essentiality coding in constructing a "combat ASL" portion of the total ASL using variable stockage criteria based on the AMDF essentiality and sub-class of supply (materiel category) coding.

(3) To evaluate and compare the relative ASL supply performance measures after application of AR 710-2 procedures and the proposed variable stockage criteria to the same demand history base(s).

(4) To evaluate and determine whether Department of the Army stockage policies and supply performance goals should differentiate between degrees of combat essentiality by materiel category, and if so, to propose policy and system changes.

d. Scope. The evaluation will consist of an analytical simulation/modeling of one year's past demand history and six months of live data accumulated during the evaluation period for 5 divisional maintenance battalions. The evaluation will concentrate on determining and comparing the relative effects of the variable stockage criteria and performance goals and current AR 710-2 procedures on the base ASLs with respect to demand accommodation, and ASL turbulence and size. The evaluation will address aviation, missile, and "common" Class IX supply subclasses and the essentiality categories of (1) essential and safety/legal, and (2) non-essential.

e. Limits. The evaluation will address "range" rather than "depth" of stockage. It will not address demand satisfaction, (unless the information derived from the simulations provides these statistics as a by-product without significant additional simulation/modeling effort). The evaluation will not address operational readiness aspects, and will be limited to simulation/modeling. Any field validation of the variable stockage criteria will be conducted as an effort separate and distinct from this evaluation. Management intervention (e.g., command adds and deletes) will not be included in the evaluation. The DISCOM class IX ASLs to be evaluated will include only the HQ & Lt Mnt Co, the Missile DSU, and the Aviation DSU. Forward support company DSUs will not be broken out from the HQ & Lt Mnt Co ASL.

f. Assumptions.

(1) That the "Stockage Criteria Model" received from DA ODCSLOG is valid.

(2) That the selected divisions will provide the required input data and that it will be accurate and timely.

(3) That the divisions selected to provide input to the evaluation will remain on the DLOGS system for the duration of the evaluation.

(4) That sufficient computer time with appropriate priority will be provided to support the evaluation program.

(5) That the AMDF essentiality codes will provide accurate and complete data to support the variable stockage criteria concept.

g. Essential Elements of Analysis (EEA). EEA will, where appropriate, be addressed by selected materiel category (aviation, missile, and "common"); by essentiality category (essential and safety/legal, and non-essential) within materiel categories; by individual divisional DSUs; and by the total division ASLs. EEA will include a comparison of the evaluation variable stockage criteria, AR 710-2 baseline procedures, and the end of October ASLs of evaluated units. Items (1) through (7) are mandatory EEA. Items (8) thru (10) are desirable if the statistics are readily available from simulation results.

(1) Will the variable stockage criteria concept permit establishment of ASLs achieving desired goals of demand accommodation, turbulence, and size, while retaining combat essential items required during the initial stages of war? If so, what regulatory changes are required?

(2) Are separate degrees of essentiality (combat essential and safety/legal, and non-essential) goals required for wartime and peacetime? If so, what should they be?

(3) Are changes to Department of the Army stockage policies or regulations required to authorize peacetime stockage of that portion of the combat ASL which is not presently on a demand-based peacetime ASL? If so, which ones?

(4) What is the effect on demand accommodation?

(5) What is the impact on ASL size?

(6) What is the effect on ASL turbulence?

(7) Are the AMDF essentiality codes useful in constructing a combat ASL?

(8) What is the extended line cost of evaluated divisions' ASL under AR 710-2 criteria and the variable stockage criteria?

(9) What are the weight and cube of the ASLs under AR 710-2 criteria and variable stockage criteria?

(10) Can the ASL be stratified by size (number of lines) and cost based on essentiality?

h. Constraints. None, providing sufficient computer time and an appropriate priority of use are provided by TRADOC.

i. Alternatives. The variable stockage criteria and performance goals to be used in the evaluation will be determined from output of the DA ODCSLOG Stockage Criteria Model. The selected criteria and goals will be compared with AR 710-2 procedures.

j. Measures of Effectiveness. The evaluation variable stockage criteria (variable by essentiality code and materiel category), will be compared with the AR 710-2 criteria and the goals proposed for AR 710-2. The prime goals of the stockage criteria evaluation are to achieve a demand accommodation rate of at least 80 percent for the essential and safety/legal ASL segment, an overall ASL size of not more than 6,500 lines for light divisions (airborne and infantry) and 7,500 lines for heavy divisions (mechanized and armor), and a minimum overall turbulence. Items (1) thru (3) are mandatory and will be measured against the above mentioned goals as well as the two "sets" of stockage criteria. Items (4) and (5) will be a comparison of the two stockage policies if the data are readily available from simulation results.

- (1) Demand accommodation.
- (2) ASL size.
- (3) ASL turbulence.
- (4) ASL cost.
- (5) ASL weight and cube.

k. Methodology. The following procedures will be exercised for each DSU included in the evaluation:

(1) The data base will include the DLOGS ASL Combined Summary Tape (DLOGS File ID X03AGK) for the previous 12 months, the DLOGS Demand History Summary Tape (File ID X05AGK), the Master Inventory Record Balance File tape (DLOGS File ID X07AGK) as of the end of October 1978 (end of period ASL) and the Catalog Master Data File (CMDF) which is derived from the AMDF. Except for the CMDF, the other three tapes must be provided for each DISCOM being evaluated in the study. These tapes will constitute the base data for each DSU.

(2) Utilizing the CMDF subclass of supply code (material category) of common, aviation, and missile and the CMDF essentiality codes (essential and safety/legal, and non-essential), the Demand History data will be stratified into six segments by essentiality codes within subclass of supply.

(3) The DA ODCSLOG Stockage Criteria Model, using the stratified data as input, will produce add/retain criteria for each of the six stratified segments.

(4) A "control" ASL for each DSU will be developed utilizing current criteria, end of period ASL, and the 12 months' base demand history. This "control" ASL will represent a stockage list as prescribed by AR 710-2 free of management intervention (e.g., command adds/deletes) or constraints (e.g. space limitations, fiscal considerations). A similar process utilizing the same base data and applying the variable stockage criteria will result in a "test" ASL. The "control," "test," and "end of October" ASLs will serve as

the basis for performing the three-way comparative evaluation of the variable stockage criteria concept and AR 710-2 stockage criteria.

(5) The primary intent is to determine the effect that a six months' demand stream will have on the above ASLs. The same demand stream will be applied to the developed ASLs using existing stockage criteria for the control ASL and the variable stockage criteria for the test ASL. The effects will be measured, as a minimum, against demand accommodation, ASL turbulence, and ASL size. The above performance statistics will be developed for each of the six months of the test period by simulating the monthly demands against each ASL. Cumulative effects of ASL changes due to demand/stockage criteria interaction will be carried forward each month.

(6) In addition to the monthly reviews described in step (5) above, a three-month review will be performed to correspond to the DLOGS quarterly review cycle.

(7) A comparative evaluation will be performed to determine the relative effect of the variable criteria versus current criteria on the primary performance measures.

1. Models.

(1) The DA ODCSLOG-provided "Stockage Criteria Model" will be used to develop the recommended variable stockage criteria and supply performance goals.

(2) The model to be used in the subsequent exercise of actual demand data is one which has been developed especially for this evaluation. It consists of a series of routines which perform the following functions:

(a) Utilizing each division's baseline ASL (file ID X07AGK), 12 months' base period demand history (file ID X03AGK), and variable stockage criteria, build test and control ASLs which are free of manager intervention (command adds and deletes).

(b) Match input data against the CMDF to extract essentiality codes, subclass of supply (materiel category) codes, unit prices, weights, and cubes.

(c) Accumulate demands by NSN within essentiality and materiel category codes.

(d) Compare most recent 12 months' demands against both current and proposed add/retain criteria and add/delete items from test and control ASLs.

(e) Accumulate statistics by essentiality and materiel category for both test and control ASLs in the following areas:

1. Demand accommodation
2. ASL turbulence
3. ASL size
4. ASL cost
5. ASL weight
6. ASL cube

(f) Present the above statistics in tabular format.

m. Related Studies.

(1) Retail Stockage Policy Evaluation (RSPE), ACN 22198.

(2) Recommended ASL Addition Management System (RAAMS) of the 82d Abn Div (no ACN).

(3) DA ODCSLOG evaluation of 82d Abn Div Combat ASL using the Stockage Criteria Model (no ACN).

n. Criterion of Choice. Criterion of choice will be selection and recommendation of the alternative stockage policies which best meet or exceed AR 710-2 goals while providing the most effective combat service support (CSS). If available, cost and mobility considerations will be included.

4. ENVIRONMENT/THREAT CONSIDERATIONS. No environment or threat considerations are associated with this evaluation. The evaluation considers item essentiality as a stockage factor to develop an effective ASL for support of the initial stages of combat as envisioned in FM 100-5.

5. SUPPORT AND RESOURCE REQUIREMENTS.

a. Support Requirements.

(1) DA ODCSLOG will provide guidance on the overall evaluation effort, participate in the selection of the recommended variable criteria, and provide deputy chairmanship to the in-process review (IPR).

(2) FORSCOM will identify three units which will provide the evaluation data and will insure timely and accurate data input to the evaluation. HQ FORSCOM will also provide a member to the IPR and will direct representation from test units as observers to the IPR meetings.

(3) TRADOC will provide a member to the IPR and will insure that sufficient computer time with a high priority of usage is provided for conduct of the evaluation.

(4) USAREUR will designate two divisional units to participate in the evaluation and insure that the required data is timely and accurate. USAREUR may, at its option, provide participation at IPRs.

(5) USALOGC will provide the IPR chairman, executive secretary, and the manpower resources for the modeling, simulation, and analysis for the evaluation.

(6) Computer Requirements. Computer resources will be provided by DPFO, Ft Leavenworth, KS. The amount which will be required is not yet known.

(a) Estimated Other Resource Requirements.

1. Manpower (LOGC):

<u>FY/Qtr</u>	<u>Man-Days</u>
79 1	150
79 2	200
79 3	135
79 4	110
80 1	40

2. Estimated TDY Trips to Ft Leavenworth: (1 person per trip, 3 days per trip), six trips.

(b) Data Requirements. Each DISCOM ASL participating in the test will provide the following:

1. ASL Combined Summary Tape (File No X03AGK) for the previous 12 months ending 31 Oct 78 to be received at USALOGC by 10 Nov 78.

2. ASL Combined Summary Tape (File No X03AGK) as of 30 Nov and 31 Dec 78. The tapes will be as of the end of the month to be received at USALOGC by the 10th duty date of the following month.

3. DLOGS Demand History Summary Tape (File ID X05AGK) each month for Dec 78 through Apr 79. The tapes will be as of the end of each month to be received at USALOGC by the 10th duty day of the following month.

4. Master Inventory Record Balance Tape (File No X07AGK) as of 31 Oct 78 and 30 Apr 79 to be received at USALOGC by the 10th duty day after the "as of" date.

6. ADMINISTRATION.

a. Evaluation Sponsor. DA ODCSLOG (POC: LTC E. J. Hospodar, DALO-SMS, AV 225-0850).

- b. Evaluation Agency. US Army Logistics Center.
 - c. Mailing Address. US Army Logistics Center
ATTN: ATCL-CFM
Fort Lee, Virginia 23801
 - d. Functional Project Officers (C&D Directorate).

Mr. G. W. Kropp (Primary)
CPT D. M. Abrahamson (Alternate)
AV 687-1945
 - e. Technical Project Officer (OA Directorate).

Mr. B. M. Williams
AV 687-1050
 - f. Evaluation Schedule. See Inclosure 2.
 - g. In-Process Review (IPR). See Inclosure 3.
7. CORRELATION. ACN 53818.

EVALUATION REFERENCES

1. Administrative References:

- a. AR 5-5, The Army Study System, 5 July 1977.
- b. AR 5-7, Defense Logistics Studies Information Exchange, August 1974.
- c. TRADOC Reg 71-3, Combat Developments Study Writing Guide, June 1977.

2. Technical References:

- a. AR 710-2, Materiel Management for Using Units, Support Units, and Installations, dated August 1971, with change 5, dated February 1979.
- b. TM 38-711-6, Standard Army Intermediate Level Supply Subsystem (SAILS), Supply Management, September 1972.
- c. LMI Task 73-8, Condensed Army Stock Plan Analysis (CASPAR), June 1973.
- d. AD-727694, AMC Inventory Research Office, The Economic Stockage Model, June 1971.
- e. Bawell Thesis, Improved Decision Rules for the Management of United States Army Retail Inventories.
- f. AD-745387, An Empirical Approach to Variable Safety Levels for Army Overseas Theaters, AMC Inventory Research Office, May 1972.
- g. USALOGC Study, Retail Stockage Policy Evaluation (RSPE), September 1978.
- h. LDSRA Project C30050, Army Retail Materiel Management Models Study, May 1973.
- i. FM 38-22, Logistics Selective Management of Secondary Items, December 1965.
- j. DODI 4140.39, Procurement Cycles and Safety Levels of Supply for Secondary Items, July 17, 1970.
- k. AR 725-50, Requisitioning, Receipt, and Issue System, June 1974, with changes.
- l. AR 750-52, Equipment Operationally Ready Standards.
- m. TM 38-L22-15-1, 2, 3 and 4, Class IX (Repair Parts) Supply System.
- n. Research Analysis Corporation, Logistics Performance Measures at the Intermediate Level, December 1973.

o. Research Analysis Corporation, Logistics Performance Measures for Direct and General Support Units.

p. DOD Dir 4140.44, Supply Management of the Intermediate and Consumer Levels of Inventory, February 1978.

q. DOD Instruction 4140.45, Standard Stockage Policy for Consumable Secondary Items at the Intermediate and Consumer Levels of Inventory, April 1978.

r. DOD Instruction 4140.46, Standard Stockage Policy for Reparable Secondary Items at the Intermediate and Consumer Levels of Inventory, April 1978.

3. Directing Correspondence:

a. Message, DALO-SMF, HQ Department of the Army, Washington, DC, 241915Z Jul 79, subject: Combat Authorized Stockage List.

b. Message, ATCL-CFM, US Army Logistics Center, Fort Lee, VA, 061555Z Oct 78, subject: Combat Authorized Stockage List (ASL).

c. Message, ATCL-CFM, US Army Logistics Center, Fort Lee, VA, 091710Z Jan 79, subject; Combat Authorized Stockage List (ASL).

EVALUATION SCHEDULE

<u>Event No</u>	<u>Event</u>	<u>Date</u>
1	MACOM ODCSLOGs identify DISCOMS to provide data for simulation/evaluation.	24 Oct 78
2	IPR meeting to approve evaluation plan.	26 Oct 78
3	Designated DISCOMs provide 12 month demand data for period 1 Nov 77 - 31 Oct 78 and ASL tape.	13 Nov 78
4	LOGC establish variable criteria for designated DISCOMs and simulate monthly performance for the base period.	29 Dec 78
5	IPR meeting for evaluation of base period simulation and variable criteria.	18 Jan 79
6	Designated DISCOMs provide monthly demand data and ASL tape on 10th working day of each month.	11 Dec 78 - 11 Jul 78
7	LOGC simulate monthly performance based on the criteria established on 29 Dec 78. Simulations to be completed by last duty day of each month.	29 Dec 78 - 31 May 79
8	IPR bimonthly meeting.	20 Mar 79
9	IPR bimonthly meeting.	16 May 79
10	IPR bimonthly meeting.	18 Jul 79
11	General Officer evaluation/approval conference.	19 Jul 79
12	LOGC provide draft revision of AR 710-2 and System Change Request (SCR) for Direct Support Unit Standard Supply System (DS4) to DA ODCSLOG/MACOM ODCSLOGs along with report and simulation results.	4 Sep 79
13	DA ODCSLOG/MACOM staffing completed.	5 Oct 79
14	Draft AR 710-2 revision and DS4 SCR provided to DA ODCSLOG for approval.	1 Nov 79

IN-PROCESS REVIEW (IPR)

IPR Composition:

Chairman (to be designated by USALOGC)
Deputy Chairman (to be designated by ODSCLOG)
Executive Secretary (provided by USALOGC)
Members:

HQ TRADOC
HQ FORSCOM
HQ USAREUR
USAOCMS
USAQMS

Observers: Observer status will be offered to FORSCOM Test Units.

APPENDIX B

ESSENTIAL ELEMENTS OF ANALYSIS

B-1. Will the variable stockage criteria permit establishment of ASLs achieving desired goals of demand accommodation (80 percent for essential items; 50 percent for nonessential items) turbulence (5-10 percent per year) and size (4,500 to 7,500 lines) while retaining combat essential items required during the initial stages of war? If so, what regulatory changes are required?

a. Results indicate that ASLs established under variable stockage criteria will meet the desired goals of demand accommodation and size. However, experience has shown that cumulative demand accommodation for a given nonessential materiel category is from 32 percent higher to 25 percent lower than predicted by the DA ODCSLOG Stockage Criteria Model (SCM). This anomaly was not encountered in the essential materiel categories. Variable stockage criteria used in the evaluation are presented at Annex B-I. Tabular presentations of demand accommodation results are at Annex B-II. Tabular presentations of ASL size results are at Annex B-III.

b. Overall cumulative turbulence figures for the 6-month analysis period, if extrapolated to represent a 12-month period, far exceed the target figure of 5-10 percent, in one case reaching 72 percent. Reasons for this discrepancy are set forth in para B-6, below.

b. Changes must be made to AR 710-2. Draft change to AR 710-2 is at Appendix J.

B-2. Are separate degrees of essentiality (combat essential and safety/legal and nonessential) goals required for wartime and peacetime? If so, what should they be? Separate goals should be set for peacetime and wartime. Peacetime goals for demand accommodation should be set at 80 percent for essential and safety/legal items and 50 percent for nonessential items. Wartime demand accommodation goals for essential items should remain at 80 percent, whereas the goal for nonessential items should be set so as to keep the total ASL size within the organic lift capability of the division. Results indicate that nonessential stockage in wartime would be virtually nonexistent due to mobility constraints.

B-3. Are changes to Department of the Army stockage policies or objectives required to authorize peacetime stockage of that portion of the combat ASL which is not presently on a demand-based peacetime ASL? If so, which ones? Stockage policies in AR 710-2 must be changed. Draft change to AR 710-2 is at Appendix J.

B-4. What is the effect on demand accommodation? The difference in cumulative demand accommodation for the test period between current and proposed policies for the 5 divisions varies between 0 percent and 7 percent overall. For essential items, demand accommodation under the proposed policy

was greater than under the current policy by between 2 percent and 4 percent. For nonessential items, demand accommodation under the proposed policy was less than under the current policy by between 6 percent and 16 percent. Demand accommodation results are presented in detail at Annex B-II.

B-5. What is the impact on ASL size? Overall ASL sizes under the current policy ranged between 5,593 and 9,733 lines, as opposed to a range between 6,220 and 7,708 lines for the proposed policy. Average ASL size under the proposed policy was 897 lines or 11.5 percent less than under the current policy. Number of essential lines averaged 738 or 15.4 percent greater under the proposed than under the current policy, while the number of nonessential lines averaged 1,635 or 54.8 percent less under the proposed than under the current policy. ASL size results are presented in detail at Annex B-III.

B-6. What is the effect on ASL turbulence? Cumulative turbulence values for the analysis period, if extrapolated to portray a 12-month period, far exceed the predicted value of 5-10 percent, averaging 56 percent and in one case reaching 72 percent. This large difference between the predicted and actual turbulence was caused by the difference in the manner in which the SCM arrives at turbulence versus the method employed in the simulation. In both cases, turbulence was defined in the following manner:

$$\text{Percent turbulence} = \frac{(\text{Number of ASL additions} + \text{Number of ASL deletions})}{\text{Initial ASL Size}} \times 100$$

The SCM assumes a review period of 1 year; i.e., that the ASL update is only performed once a year. Using probabilities, the number of additions and deletions was calculated and divided by the ASL size only once in order to conform to the annual update. In the simulation, however, each month's additions and deletions were added to those of previous months and the sum divided by the baseline ASL size. This process results over time in a series of fractions with the same denominator, but constantly increasing numerators and, therefore, in constantly increasing turbulence percentages. Where monthly ASL updates are performed, if an item were deleted from the ASL in one month and reinstated to the ASL in a later month, it would increase the turbulence count by 2, whereas, if the ASL were being reviewed on an annual basis, the net effect would be zero. It is for the above reasons that the DA ODCSLOG Stockage Criteria Model is not a good predictor of ASL turbulence. Presentations of cumulative ASL turbulence are at Annex B-IV. There was no significant difference between turbulence values under the current and proposed policies.

B-7. Are the AMDF essentiality codes useful in constructing a combat ASL? The AMDF essentiality codes were found to be extremely useful in constructing a combat ASL in that they allow discrimination between essential items on one hand and nonessential or "nice-to-have" items on the other. It is recognized that the AMDF essentiality codes are not 100 percent correct and, therefore, provision for changing essentiality codes is included in the draft change to AR 710-2 which is at Appendix J.

B-8. What is the extended line cost of evaluated divisions' ASL under AR 710-2 criteria and the variable stockage criteria? As of the end of the simulation period, the total proposed ASLs were valued at \$445,312 less than the total current ASLs. In addition, under the proposed criteria, 85.1 percent of the total RO dollar value was in the essential categories, whereas under the current criteria, only 76.2 percent of total RO dollar value was in the essential categories. Tabular presentations of ASL dollar values are at Annex B-V.

B-9. What are the weight and cube of the ASLs under AR 710-2 criteria and variable stockage criteria? ASL weight and cube data obtained from the simulation phase of the evaluation are highly suspect and are therefore not included. ASL weight and cube data from the field validation are included in Appendix K.

B-10. Can the ASL be stratified by size and cost based on essentiality? ASLs can be stratified by size (number of lines) and cost based on essentiality. Stratifications are at Annex B-III (Size) and B-V (Cost).

ANNEX B-I
PROPOSED ASL ADD/RETAIN CRITERIA

<u>Division</u>	<u>ESSENTIAL</u>		
	<u>Common</u>	<u>Missile</u>	<u>Aircraft</u>
1ST ID	5/3	3/2	4/1
2D AD	5/3	3/1	3/1
3D AD	4/3	1/1	3/1
3D ID	5/3	1/1	4/2
82D ABN	4/2	2/1	5/2

<u>Division</u>	<u>NONESSENTIAL</u>		
	<u>Common</u>	<u>Missile</u>	<u>Aircraft</u>
1ST ID	17/9	6/1	6/3
2D AD	18/12	8/3	6/1
3D AD	14/8	5/1	5/1
3D ID	18/11	6/1	6/1
82D ABN	16/9	6/1	6/1

NOTE: Current policy for all divisions, except 82d Airborne, is 6/3 for common items and 3/1 for missile and aircraft regardless of essentiality. 82d Airborne uses the above criteria for essential items. Criteria for nonessential items are 11/3 for common and 7/1 for missile and aircraft.

ANNEX B-II
CUMULATIVE DEMAND ACCOMMODATION

B-II-1

Performance Measure: Demand Accommodation
(Cumulative Percent)

Division: 82d ABN

	<u>Current Policy</u>	<u>Proposed Policy</u>	<u>Difference (Proposed - Current)</u>
<u>Essential</u>			
Common	76%	82%	+ 6%
Missile	73	84	+ 11
Aircraft	84	75	- 9
Overall	77	81	+ 4
<u>Nonessential</u>			
Common	71	65	- 6
Missile	30	30	0
Aircraft	22	25	+ 3
Overall	70	64	- 6
<u>Grand Total</u>	74	74	0

Division: 1st ID

<u>Essential</u>			
Common	85%	86%	+ 1%
Missile	69	66	- 3
Aircraft	73	69	- 4
Overall	84	86	+ 2
<u>Nonessential</u>			
Common	81	67	- 14
Missile	89	82	- 7
Aircraft	50	31	- 19
Overall	81	67	- 14
<u>Grand Total</u>	83	78	- 5

Performance Measure: Demand Accommodation
 (Cumulative Percent)

Division: 2d AD

	<u>Current Policy</u>	<u>Proposed Policy</u>	<u>Difference (Proposed - Current)</u>
<u>Essential</u>			
Common	86%	87%	+ 1%
Missile	72	72	0
Aircraft	77	77	0
Overall	85	87	+ 2
<u>Nonessential</u>			
Common	84	68	- 16
Missile	64	47	- 17
Aircraft	71	36	- 35
Overall	84	68	- 16
<u>Grand Total</u>	85	78	- 7

Division: 3d AD

Essential

Common	84%	88%	+ 4%
Missile	80	100	+ 20
Aircraft	84	84	0
Overall	84	88	+ 4

Nonessential

Common	78	66	- 12
Missile	45	27	- 18
Aircraft	65	40	- 25
Overall	78	66	- 12
<u>Grand Total</u>	82	79	- 3

Performance Measure: Demand Accommodation
(Cumulative Percent)

Division: 3d ID

	<u>Current Policy</u>	<u>Proposed Policy</u>	<u>Difference (Proposed - Current)</u>
<u>Essential</u>			
Common	87%	89%	+ 2%
Missile	35	100	+ 65
Aircraft	82	74	- 12
Overall	87	88	+ 1
<u>Nonessential</u>			
Common	84	69	- 15
Missile	75	63	- 12
Aircraft	48	29	- 19
Overall	84	68	- 16
<u>Grand Total</u>	86	80	- 6

ANNEX B-III

ASL SIZE

B-III-1

Performance Measure: ASL Size

Division: 82d ABN

	<u>Current Policy</u>	<u>Proposed Policy</u>	<u>Difference (Proposed - Current)</u>
<u>Essential</u>			
Common	2,996	4,284	+ 1,288
Missile	231	308	+ 77
Aircraft	1,082	772	- 310
Overall	4,309	5,364	+ 1,055
<u>Nonessential</u>			
Common	1,241	808	- 433
Missile	17	17	0
Aircraft	26	31	+ 5
Overall	1,284	856	- 428
<u>Grand Total</u>	5,593	6,220	+ 627

Division: 1st ID

<u>Essential</u>			
Common	4,032	4,448	+ 416
Missile	139	124	- 15
Aircraft	507	452	- 55
Overall	4,678	5,024	+ 346
<u>Nonessential</u>			
Common	3,024	1,470	- 1,554
Missile	22	12	- 10
Aircraft	26	12	- 14
Overall	3,072	1,494	- 1,578
<u>Grand Total</u>	7,750	6,518	- 1,232

Performance Measure: ASL Size

Division: 2d AD

	<u>Current Policy</u>	<u>Proposed Policy</u>	<u>Difference (Proposed - Current)</u>
<u>Essential</u>			
Common	3,850	4,320	+ 470
Missile	184	184	0
Aircraft	379	379	0
Overall	<u>4,413</u>	<u>4,883</u>	+ 470
<u>Nonessential</u>			
Common	3,538	1,361	- 2,177
Missile	96	37	- 59
Aircraft	20	10	- 10
Overall	<u>3,654</u>	<u>1,408</u>	- 2,246
<u>Grand Total</u>	8,067	6,291	- 1,776

Division: 3d AD

<u>Essential</u>			
Common	4,079	5,369	+ 1,290
Missile	62	127	+ 65
Aircraft	846	846	0
Overall	<u>4,987</u>	<u>6,342</u>	+ 1,355
<u>Nonessential</u>			
Common	2,610	1,216	- 1,394
Missile	74	53	- 21
Aircraft	54	36	- 18
Overall	<u>2,738</u>	<u>1,305</u>	- 1,433
<u>Grand Total</u>	7,725	7,647	- 78

Performance Measure: ASL Size

Division: 3d ID

	<u>Current Policy</u>	<u>Proposed Policy</u>	<u>Difference (Proposed - Current)</u>
<u>Essential</u>			
Common	4,680	5,253	+ 573
Missile	75	180	+ 105
Aircraft	820	605	- 215
Overall	<u>5,575</u>	<u>6,038</u>	+ 463
<u>Nonessential</u>			
Common	4,015	1,577	- 2,438
Missile	80	53	- 27
Aircraft	63	40	- 23
Overall	<u>4,158</u>	<u>1,670</u>	- 2,488
<u>Grand Total</u>	9,733	7,708	- 2,025

ANNEX B-IV
ASL TURBULENCE

B-IV-1

Performance Measure: Cumulative Percent Turbulence

Division: 82d ABN

	<u>Current Policy</u>	<u>Proposed Policy</u>	<u>Difference (Proposed - Current)</u>
<u>Essential</u>			
Common	46%	56%	+ 10%
Missile	72	76	+ 4
Aircraft	40	40	0
Overall	46	54	+ 8
<u>Nonessential</u>			
Common	30	34	+ 4
Missile	144	92	- 52
Aircraft	72	88	+ 16
Overall	32	36	+ 4
<u>Grand Total</u>	42	52	+ 10

Division: 1st ID

<u>Essential</u>			
Common	32%	36%	+ 4%
Missile	56	66	+ 10
Aircraft	56	38	- 18
Overall	36	38	+ 2
<u>Nonessential</u>			
Common	38	16	- 22
Missile	52	54	+ 2
Aircraft	78	14	- 64
Overall	38	16	- 22
<u>Grand Total</u>	36	32	- 4

Performance Measure: Cumulative Percent Turbulence

Division: 2d AD

	<u>Current Policy</u>	<u>Proposed Policy</u>	<u>Difference (Proposed - Current)</u>
<u>Essential</u>			
Common	58%	60%	+ 2%
Missile	86	86	0
Aircraft	52	52	0
Overall	<u>58</u>	<u>60</u>	<u>+ 2</u>
<u>Nonessential</u>			
Common	52	34	- 18
Missile	40	50	+ 10
Aircraft	60	256	+196
Overall	<u>52</u>	<u>36</u>	<u>- 16</u>
<u>Grand Total</u>	56	54	- 2

Division: 3d AD

<u>Essential</u>			
Common	68%	78%	+ 10%
Missile	46	88	+ 42
Aircraft	46	46	0
Overall	<u>64</u>	<u>74</u>	<u>+ 10</u>
<u>Nonessential</u>			
Common	84	70	- 14
Missile	114	48	- 66
Aircraft	116	58	- 58
Overall	<u>86</u>	<u>68</u>	<u>- 18</u>
<u>Grand Total</u>	72	72	0

Performance Measure: Cumulative Percent Turbulence

Division: 3d ID

	<u>Current Policy</u>	<u>Proposed Policy</u>	<u>Difference (Proposed - Current)</u>
<u>Essential</u>			
Common	58%	66%	+ 8%
Missile	72	86	+ 14
Aircraft	70	82	+ 12
Overall	<u>60</u>	<u>68</u>	<u>+ 8</u>
<u>Nonessential</u>			
Common	70	62	- 8
Missile	100	62	- 38
Aircraft	128	80	- 48
Overall	<u>70</u>	<u>62</u>	<u>- 8</u>
<u>Grand Total</u>	64	68	+ 4

ANNEX B-V
DOLLAR VALUE OF REQUISITIONING OBJECTIVES

B-V-1

Performance Measure: ASL Cost

Division: 82d ABN

	<u>Current Policy</u>	<u>Proposed Policy</u>	<u>Difference (Proposed - Current)</u>
<u>Essential</u>			
Common	\$547,470	\$783,484	+ \$236,014
Missile	401,452	420,148	+ 18,696
Aircraft	529,697	396,965	- 132,732
Overall	<u>1,478,619</u>	<u>1,600,597</u>	+ 121,978
<u>Nonessential</u>			
Common	226,153	183,356	- 42,797
Missile	13,262	13,262	0
Aircraft	8,224	9,873	+ 1,649
Overall	<u>247,639</u>	<u>206,491</u>	- 41,148
<u>Grand Total</u>	<u>\$1,726,258</u>	<u>\$1,807,088</u>	+ \$80,830

Division: 1st ID

<u>Essential</u>			
Common	\$717,178	\$754,802	+ \$37,624
Missile	203,365	177,021	- 26,344
Aircraft	137,571	128,679	- 8,892
Overall	<u>1,058,114</u>	<u>1,060,502</u>	+ 2,388
<u>Nonessential</u>			
Common	346,202	227,490	- 118,712
Missile	9,281	7,718	- 1,563
Aircraft	8,755	7,191	- 1,564
Overall	<u>364,238</u>	<u>242,399</u>	- 121,839
<u>Grand Total</u>	<u>\$1,422,352</u>	<u>\$1,302,901</u>	- \$119,451

Performance Measure: ASL Cost

Division: 2d AD

	<u>Current Policy</u>	<u>Proposed Policy</u>	<u>Difference (Proposed - Current)</u>
<u>Essential</u>			
Common	\$1,386,493	\$1,453,441	+ \$66,948
Missile	201,911	201,911	0
Aircraft	329,483	329,483	0
Overall	<u>1,917,887</u>	<u>1,984,835</u>	+ 66,948
<u>Nonessential</u>			
Common	635,726	287,760	- 347,966
Missile	24,811	2,253	- 22,558
Aircraft	2,246	1,331	- 915
Overall	<u>662,783</u>	<u>291,344</u>	- 371,439
<u>Grand Total</u>	\$2,580,670	\$2,276,179	- \$304,491

Division: 3d AD

<u>Essential</u>			
Common	\$1,328,860	\$1,490,935	+ \$162,075
Missile	153,471	214,732	+ 61,261
Aircraft	387,803	387,803	0
Overall	<u>1,870,134</u>	<u>2,093,470</u>	+ \$223,336
<u>Nonessential</u>			
Common	529,558	361,307	- 168,251
Missile	11,519	8,178	- 3,341
Aircraft	15,869	5,856	- 10,013
Overall	<u>556,946</u>	<u>375,341</u>	- 181,605
<u>Grand Total</u>	\$2,427,080	\$2,468,811	+ \$41,731

Performance Measure: ASL Cost

Division: 3d ID

	<u>Current Policy</u>	<u>Proposed Policy</u>	<u>Difference (Proposed - Current)</u>
<u>Essential</u>			
Common	\$1,652,084	\$1,727,814	+\$ 75,730
Missile	197,730	407,921	+ 210,191
Aircraft	317,875	223,524	- 94,351
Overall	<u>2,167,689</u>	<u>2,359,259</u>	<u>+ 191,570</u>
<u>Nonessential</u>			
Common	728,575	465,311	- 263,264
Missile	16,266	10,255	- 6,011
Aircraft	12,459	5,933	- 6,526
Overall	<u>757,300</u>	<u>481,499</u>	<u>- 275,801</u>
<u>Grand Total</u>	<u>\$2,924,989</u>	<u>\$2,840,758</u>	<u>-\$ 84,231</u>

APPENDIX C

REFERENCES

C-1. ADMINISTRATIVE REFERENCES:

- a. AR 5-5, The Army Study System, 5 July 1977.
- b. AR 5-7, Defense Logistics Studies Information Exchange, August 1974.
- c. TRADOC Reg 71-3, Combat Developments Study Writing Guide, June 1977.

C-2. TECHNICAL REFERENCES:

- a. AR 710-2, Materiel Management for Using Units, Support Units, and Installations, August 1971, with change 5, February 1979.
- b. TM 38-711-6, Standard Army Intermediate Level Supply Subsystem (SAILS), Supply Management Procedures, September 1972, with changes.
- c. LMI Task 73-8, Condensed Army Stock Plan Analysis (CASPAR), June 1973.
- d. AD-727694, AMC Inventory Research Office, The Economic Stockage Model, June 1971.
- e. Bawell Thesis, Improved Decision Rules for the Management of United States Army Retail Inventories.
- f. AD-745387, An Empirical Approach to Variable Safety Levels for Army Overseas Theaters, AMC Inventory Research Office, May 1972.
- g. USALOGC Study, Retail Stockage Policy Evaluation (RSPE), September 1978.
- h. LDSRA Project C30050, Army Retail Materiel Management Models Study, May 1973.
- i. FM 38-2, Logistics Inventory Management, March 1976.
- j. DODI 4140.39, Procurement Cycles and Safety Levels of Supply for Secondary Items, July 17, 1970.
- k. AR 725-50, Requisitioning, Receipt, and Issue System.
- l. AR 750-52, Equipment Operationally Ready Standards.
- m. TM 38-L22-15-1, 2, 3 and 4, DLOGS Class IX (Repair Parts) Supply System.

n. Research Analysis Corporation, Logistics Performance Measures at the Intermediate Level, December 1973.

o. Research Analysis Corporation, Logistics Performance Measures for Direct and General Support Units, undated.

p. DOD Dir 4140.44, Supply Management of the Intermediate and Consumer Levels of Inventory, February 1978.

q. DOD Instruction 4140.45, Standard Stockage Policy for Consumable Secondary Items at the Intermediate and Consumer Levels of Inventory, April 1978.

r. DOD Instruction 4140.46, Standard Stockage Policy for Reparable Secondary Items at the Intermediate and Consumer Levels of Inventory, April 1978.

s. USALOGC Study, Authorized Stockage List Mobility Study, March 1978.

C-3. DIRECTING CORRESPONDENCE:

a. Message, DALO-SMS, HQDA, 241915ZJUL 79, subject: Combat Authorized Stockage List.

b. Message, ATCL-CFM, US Army Logistics Center, 061555Z0CT 78, subject: Combat Authorized Stockage List (ASL).

c. Message, ATCL-CFM, US Army Logistics Center, 091710ZJAN 79, subject: Combat Authorized Stockage List (ASL).

APPENDIX D

GLOSSARY

D-1. AIRCRAFT ITEMS. This category includes all repair parts which are exclusively used for maintenance operations on aircraft or aircraft peculiar items of equipment. These parts are identified by Supply Categories of Materiel Code (SCMC) 9A.

D-2. ASL. A list of all items authorized to be stocked at a specific echelon of supply. The following are various types of authorized stockage lists; prescribed load list; direct support unit stockage list; installation stockage list; maintenance shop stock; field Army depot stockage lists; theater authorized stockage list; National inventory control point demand stockage list; and list of items for operational projects.

D-3. ASL TURBULENCE. This measure represents the number of lines added to and deleted from the ASL in a 12-month period expressed as a percent of the initial ASL. (NSN changes, stockage list code changes, and catalog changes are excluded.) The formula is---

$$\frac{\text{Additions \& deletions}}{\text{(most recent 12 mos)}} \times \frac{1}{\text{ASL size (initial)}} = \% \text{ ASL Turbulence}$$

D-4. CLASS IX. Repair parts and components to include kits, assemblies, and subassemblies, repairable and nonrepairable, required for maintenance.

D-5. COMMON ITEMS. This category includes all repair parts with the exception of aircraft and missile peculiar items.

D-6. DEMAND. A valid requirement for materiel placed on the supply system by an authorized customer. Demand is categorized by customer. Demand is further categorized as recurring or nonrecurring and is measured in terms of frequency and quantity.

D-7. DEMAND ACCOMMODATION. This measure represents the number of demands for line items which are on the ASL expressed as a percentage of the total number of demands.

$$\frac{\text{ASL Demands}}{\text{Total Demands}} \times 100\% = \text{Demand Accommodation}$$

D-8. DEMAND SATISFACTION. The percentage of valid customer requisitions for authorized stockage list items that were filled to a level of at least 90 percent on demand.

D-9. DEPTH OF STOCKAGE. The quantity of an ASL item which is authorized for stockage.

D-10. ESSENTIALITY. Essentiality is the measure of the military worth of an item of supply in terms of how its failure, if a replacement is not immediately available, would affect the ability of the weapon system, end item, or organization to perform its intended functions/missions.

D-11. ESSENTIALITY CODES. A one-position alphabetic code used to indicate the essentiality of end items and support items as shown in the table below.

a. End Items. Codes A and B are applicable to end items that are contained in authorization and allowance media other than Repair Parts and Special Tools Lists (RPSTL) Technical Manuals, or to items excluded from the provisions of AR 700-18.

<u>Code</u>	<u>Explanation</u>
A	Item is essential
B	Item is not essential

b. Repair Parts. Codes C, D, E, F, G, and J are applicable to support items contained in Repair Parts and Special Tools Lists (RPSTL) Technical Manuals of the equipment.

<u>Code</u>	<u>Explanation</u>
C	ESSENTIAL. A support item required to support a maintenance operation, at a field maintenance or organizational maintenance level, that must be performed to insure that the end item continues to be capable of performing its intended combat or support mission.
D	SAFETY. A support item that is not required in support of an essential field maintenance or organizational maintenance function (code C) but is required for operator/crew safety during training and/or in garrison. Considered essential for this evaluation.
E	LEGAL/CLIMATIC. A support item that is not required in support of an essential field maintenance or organizational maintenance function (code C) but is required to meet climatic conditions or to meet legal requirements, or the requirements of a host nation in an overseas environment. Considered essential for this evaluation.
F	DEPOT. A support item used only at depot maintenance level.

G NOT ESSENTIAL. A support item that is not required in support of an essential field maintenance or organizational maintenance function (code C), or for crew/operator safety (code D), or legal/climatic requirements (code E), or depot maintenance operation (code F), or deferrable maintenance function (code J).

J DEFERRED. A support item required to support a maintenance operation at a field maintenance or organizational maintenance level, but which may be deferred in wartime without causing degradation of the end item to the extent that it is unable to perform its mission, but must be performed as soon as operational considerations and materiel availability permit. Includes servicing type items.

D-12. MISSILE ITEM. This category includes all repair parts which are exclusively used for maintenance operations on missile systems. These items bear a SCMC of 9L.

D-13. RANGE OF STOCKAGE. The number of various line items which are present on the ASL regardless of the quantity authorized to be stocked.

D-14. REQUISITIONING OBJECTIVE (RO). The maximum quantity of a stocked item which is authorized to be on hand and/or on order at any given time.

D-15. STOCKAGE CRITERIA.

a. Addition Criterion. The minimum number of demands which must be experienced in a given time period (usually 360 days) to qualify a nonstocked item for addition to the ASL.

b. Retention Criterion. The minimum number of demands which must be experienced in a given time period (usually 360 days) to qualify a stocked item for retention on the ASL.

APPENDIX E

STUDY CONTRIBUTORS

E-1. THE FOLLOWING DIVISIONS SUPPLIED DEMAND HISTORY DATA:

1st Infantry Division
2d Armored Division
3d Armored Division
3d Infantry Division
82d Airborne Division

E-2. THE FOLLOWING UNITS AND ORGANIZATIONS PROVIDED TECHNICAL SUPPORT:

US Army Training and Doctrine Command (TRADOC)
US Army Forces Command (FORSCOM)
US Army, Europe (USAREUR) and 7th Army
VII Corps
V Corps
III Corps
XVIII Airborne Corps
2d Armored Division Support Command (DISCOM)
1st Infantry Division Support Command (DISCOM)
3d Armored Division Support Command (DISCOM)
82d Airborne Division Support Command (DISCOM)
3d Infantry Division Support Command (DISCOM)
US Army Ordnance and Chemical Center and School
US Army Quartermaster School
Headquarters, Department of the Army (HQDA)
USAMRSA
US Army Materiel Development and Readiness Command (DARCOM)
US Army Catalog Data Agency (USACDA)
US Army Inventory Research Office (USAIRO)
TRADOC Combined Arms Test Activity (TCATA)
US Army Materiel Systems Analysis Agency (USAMSAA)
US Army Logistics Evaluation Agency (USALEA)

E-3. THE FOLLOWING AGENCIES SUPPLIED DATA OTHER THAN DEMAND HISTORY:

US Army Materiel Readiness Support Activity (USAMRSA)
US Army Catalog Data Agency (USACDA)
US Army Computer Systems Command (USACSC)
US Army Materiel Development and Readiness Command (DARCOM)

APPENDIX F
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HQDA (DALO-SMS)	1
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Army War College	1
Aviation Center & School	1
Chaplain Center & School	1
Command & General Staff College	1
Communications-Electronics School	1
Engineer Center & School	2

Field Artillery Center & School	1
Infantry Center & School	1
Institute for Military Assistance	1
Intelligence Center & School	1
Logistics Management Center	2
Military Academy	1
Missile & Munitions Center & School	1
Ordnance & Chemical Center & School	4
Quartermaster Center & School	4
School & Training Center	1
Signal School	1
Transportation Center & School	4

Corps:

III Corps
V Corps
VII Corps
XVIII Airborne Corps

Divisions:

1st Armored
1st Infantry
2d Armored
2d Infantry
3d Armored
3d Infantry
1st Cavalry (TRICAP)
4th Infantry
5th Infantry
7th Infantry
8th Infantry
9th Infantry
24th Infantry
25th Infantry
82d Airborne
101st Airborne (AASLT)

Proponent Study Agency

USALOGC 50*

*For distribution as requested.

APPENDIX G

RATIONALE FOR SELECTION OF VARIABLE STOCKAGE CRITERIA

G-1. ESSENTIAL ITEMS. Stockage criteria were chosen using outputs from the DA ODCSLOG Stockage Criteria Model according to the following parameters, which are listed in decreasing order of importance (see Table G-1):

- a. Minimum allowable demand accommodation for each materiel category is 80 percent. This level was chosen because it is the midpoint of the acceptable performance range set forth in Chapter 7, AR 710-2.
- b. ASL turbulence should fall in the range between 5 and 10 percent in order to prevent the ASL from growing unchecked. The 5 - 10 percent turbulence figure was reached through discussions with personnel of 1st Infantry Division, which field validated the concept, and DA ODCSLOG. For a given demand accommodation, 5 - 10 percent is the level at which economies gained from decreased ASL turbulence begin to be offset by increased ASL size.
- c. ASL size is to be minimized within the above limits. This parameter is based upon the requirement for the DSU to be able to move its essential items.

G-2. NONESSENTIAL ITEMS. Stockage criteria were chosen using outputs from the DA ODCSLOG Stockage Criteria Model according to the following parameters, which are listed in decreasing order of importance (see Table G-2):

- a. No nonessential category may have less stringent add/retain criteria than any essential category within the same division. The reason for this constraint is to prevent stockage of nonessential items at the expense of essential items by making it uniformly more difficult to stock nonessential items.
- b. Maximum allowable demand accommodation for each commodity is 50 percent except where prevented by the constraint outlined above, in which case accommodation will be set as high as possible within the constraint. The 50 percent demand accommodation level was chosen because this is the point at which the number of additional ASL lines required to cause a 1 percent increase in demand accommodation begins to increase dramatically (see graphs, figures G-1 thru G-15). The effect is most pronounced for the common categories although it is easily visible for missile and aircraft categories as well. The curves for the common categories appear to be exponential in nature. Therefore, the basis for this decision is essentially economic.
- c. ASL turbulence should fall in the range between 5 and 10 percent for the reasons outlined in paragraph G-1b, above.
- d. ASL size was minimized within the above constraints.

TABLE G-1

Parameters for Selecting Stockage Criteria-Essential Items.

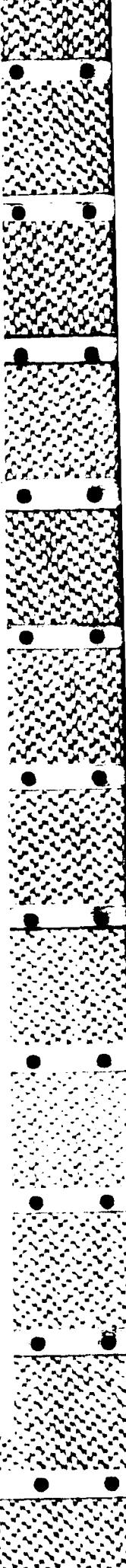
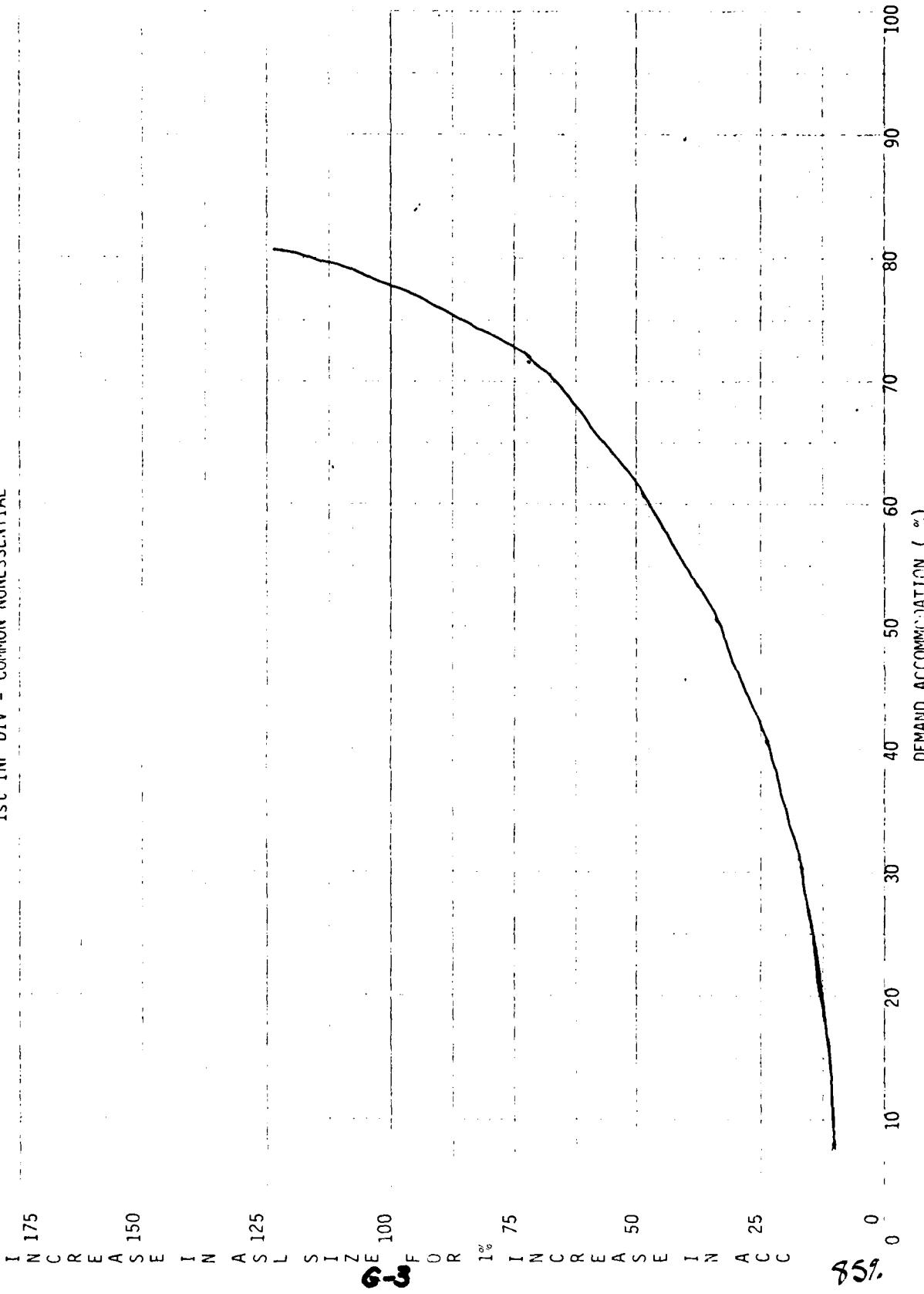
1. Demand Accommodation - minimum of 80 percent.
2. ASL Turbulence - 5 to 10 percent.
3. Number of ASL Lines - to be minimized.

TABLE G-2

Parameters for Selecting Stockage Criteria-Nonessential Items.

1. Criteria must be greater than or equal to all criteria for essential categories.
2. Demand Accommodation - maximum 50 percent.
3. ASL Turbulence - 5 to 10 percent.
4. Number of ASL Lines - to be minimized.

Ist INF DIV - COMMON NONESSENTIAL



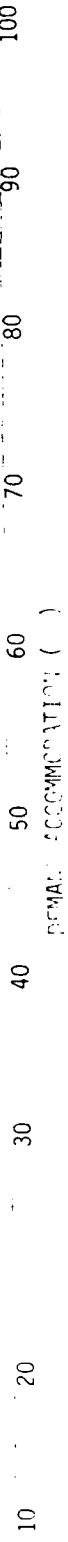
1st INF DIV - MISSILE NONESSENTIAL

I N C R E A S E I N A S

G-4

I N C R E A S E

I N A C C



AD-A193 394

VARIABLE CLASS IX AUTHORIZED STOCKAGE LIST (ASL)
ADD/RETAIN POLICY FOR DIVISION SUPPORT COMMANDS(U) ARMY
LOGISTICS CENTER FORT LEE VA G W KROPP ET AL.

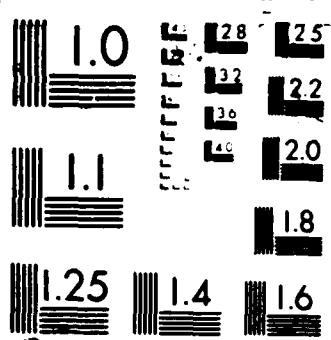
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1st INF DIV - AIRCRAFT NONESSENTIAL

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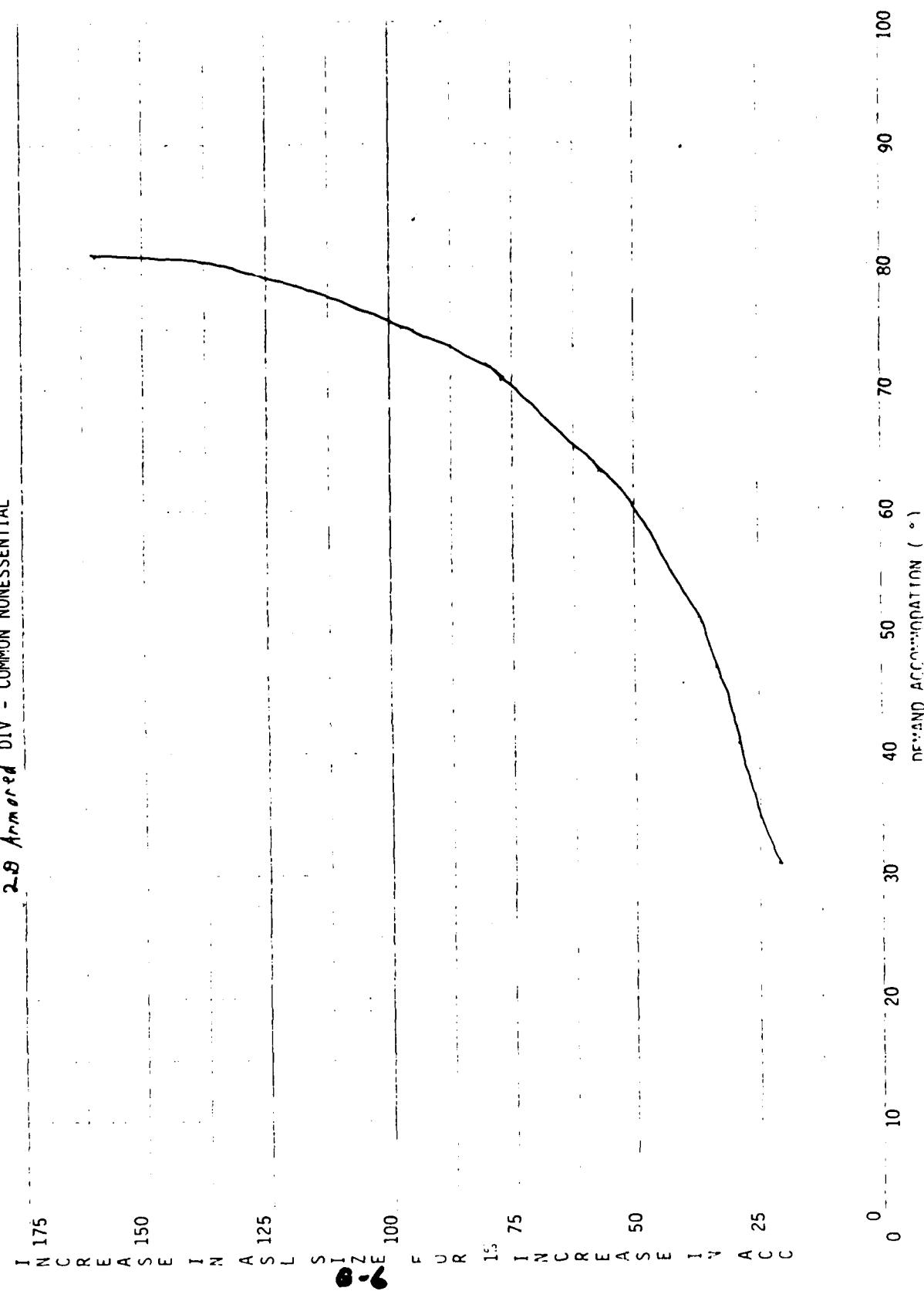
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2.8 Armored DIV - COMMON NONESSENTIAL



28 ARMORED DIV - MISSILE NONESSENTIAL

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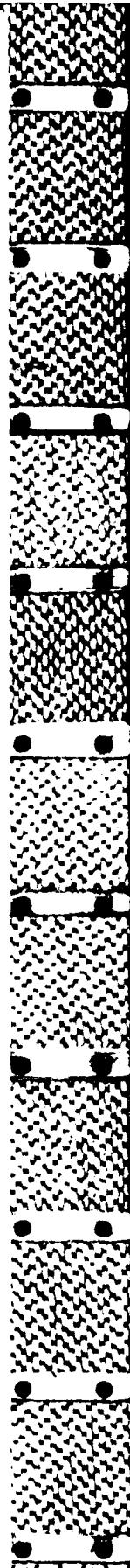
28 AIRCRAFT DIV - AIRCRAFT INVENTORY

7

N C R E A S E I N A S L S I Z E F O R T H E P R E V I O U S T A C K

6-8

10 20 30 40 50 60 70 80 90 100



38 ARMORED DIV - COMMON NONESSENTIAL

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E A S 150

I N A S 125

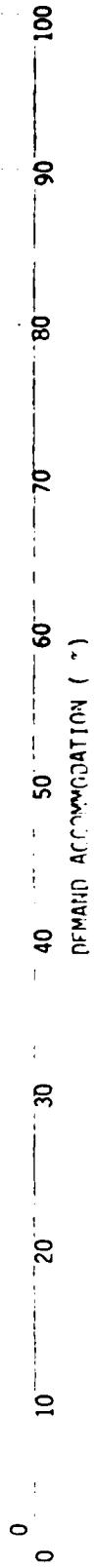
6-9 F J R I S 100

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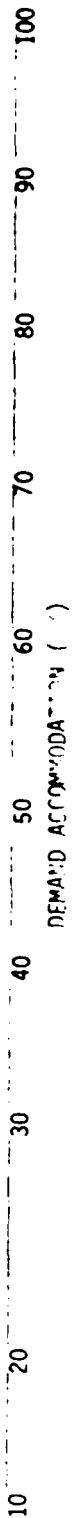
3D ARMORED DIV - MISSILE NONESSENTIAL

I N C R E A S E I N S U P P O R T

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S E I N S U P P O R T
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6-70

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DEMAND ACCOMMODATION (%)

38 ARMCREW DIV - AIRCRAFT NONESSENTIAL

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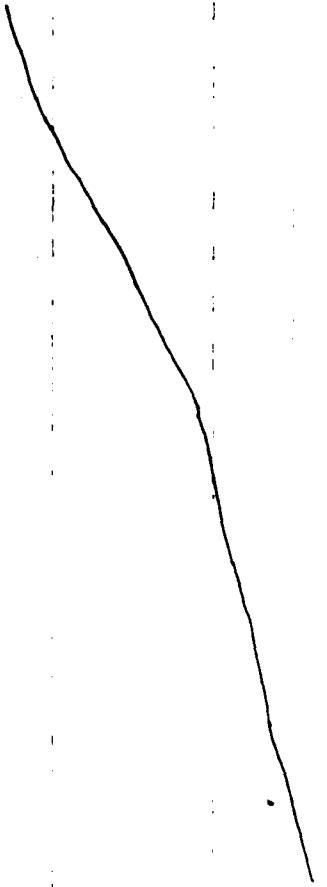
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DEMANDS ACCOMMODATION ()



82D AIRBORNE DIV - COMMON NONESSENTIAL

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I N C R E A S E
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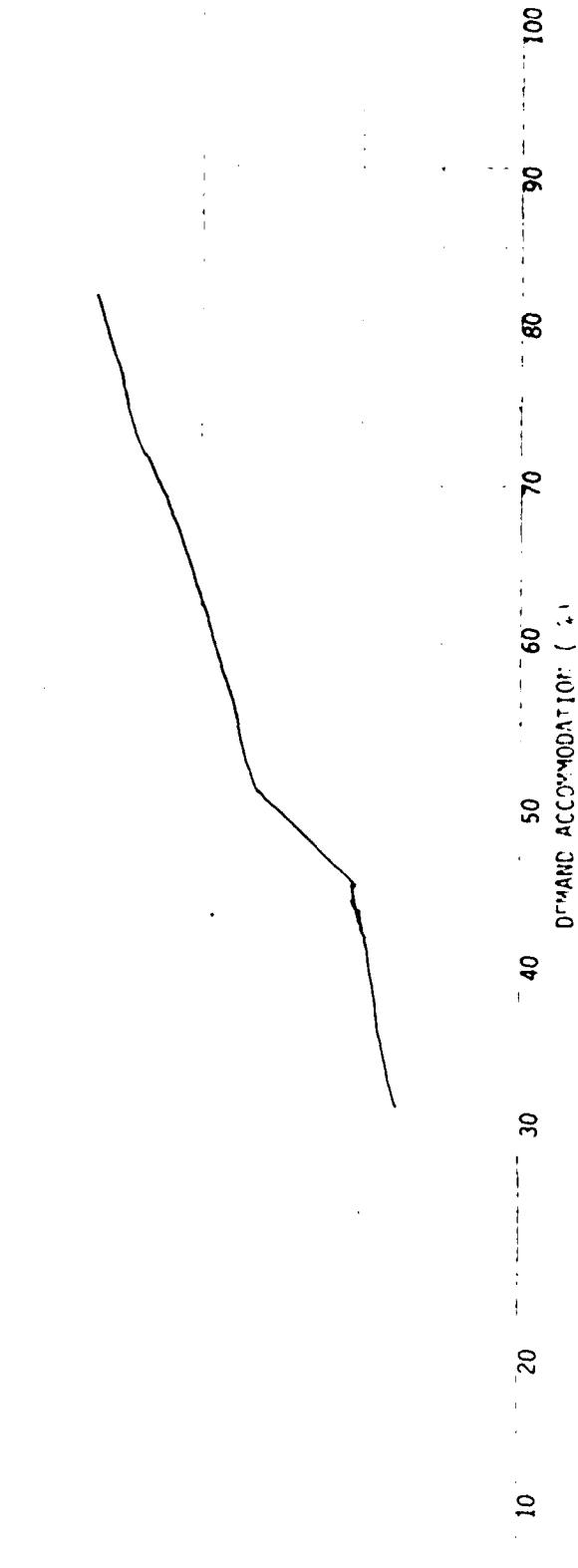
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828 AIRBORNE DIV - MISSILE NONESSENTIAL

N C R E 6
S E I N A 5
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6-13



P2B AIRCRAFT DIV - AIRCRAFT NONESSENTIAL

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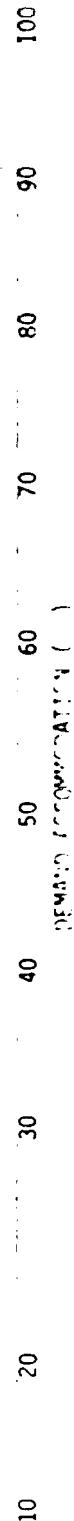
G-14

3

I N C R E A S E

A S

I N A C C



APPENDIX H

MODELS

H-1. Variable stockage criteria and recommended supply performance goals were developed using the DA ODCSLOG Stockage Criteria Model (SCM). Input to the SCM is developed by stratifying a 12-month divisional demand history by essentiality code and materiel category. After the demand history is stratified, it is transformed into a frequency distribution which looks like this:

xxxx items had 1 demand
xxxx items had 2 demands
etc.

The SCM uses this frequency distribution and the Poisson probability distribution to determine, for each combination of essentiality and materiel category, predicted performance data for all sets of ASL add/retain criteria from a lower limit of 1 demand in 360 days to add an item to the ASL and 1 demand in 360 days to retain an item on the ASL (1/1) to an upper limit which is specified by parameter input. Upper limit used in this effort was 30/30. Output from the SCM takes the form of a listing which displays predicted demand accommodation, ASL turbulence, and ASL size for each set of add/retain criteria. These outputs were then used in selecting the variable stockage criteria and supply performance goals used in the evaluation. Results of this effort indicate that the SCM is a good predictor of demand accommodation where the sample is greater than 400 NSNs and the demand stream consists of more than 200 demands per month. The SCM is a poor predictor of ASL turbulence for the reasons outlined in Appendix B, para B-6. Accuracy in ASL size predictions is difficult to determine.

H-2. The model which was used in the subsequent exercise of actual demand data was developed especially for this evaluation. This model may be run in either the Create mode or the Update mode.

a. The Create mode is run only at the beginning of the evaluation period to create the "test" and "control" ASLs.

(1) The model compares each division's baseline ASL (DLOGS Master Inventory Record Balance File-File ID-X07AGK) with the 12-month base period demand history (DLOGS ASL Combined Summary File-File ID-X03AGK) and both current and proposed variable stockage criteria.

(2) NSNs which are on the baseline ASL and meet the current retention criteria are placed on the current ASL, as are those NSNs which are not on the baseline ASL but meet the current addition criteria.

(3) NSNs which are on the baseline ASL and meet the proposed retention criteria are placed on the proposed or test ASL, as are those NSNs which are not on the baseline ASL but meet the proposed addition criteria.

b. The Update mode is run each month after the creation of the test and control ASLs.

(1) Input consists of the test and control ASLs produced in the previous cycle, current and proposed variable stockage criteria, and a 12-month demand history (either DLOGS ASL Combined Summary File, File ID-X03AGK or CLOGS Demand History Summary File, File ID-X05AGK).

(2) The demand history is compared with each ASL on an NSN-by-NSN basis. Items which are not on the ASL but meet the addition criteria are added. Items which have been on the ASL for over 1 year and do not meet the retention criteria are deleted.

c. In both the Create mode and the Update mode, requisitioning Objectives (ROs) are computed according to the following logic:

(1) RO=Operating Level (OL) + Reorder Point (ROP)

(2) ROP

(a) CONUS divisions (1st Infantry 2d Armored, and 82d Airborne)

ROP=30 days of supply (DOS)

(b) Europe divisions (3d Armored and 3d Infantry)

ROP=45 DOS

(3) OL

(a) If item has a standard unit price, then

$$OL = \sqrt{\frac{2CD}{I\bar{P}}}$$

where C=administrative cost to generate a requisition, in dollars.

D=quantity demanded in the most recent 12 months.

I=holding cost in terms of percent of unit price per year.

and P=unit price of the item in dollars.

Since C is constant at \$4.50 and I is constant at 40 percent, the equation becomes:

$$OL = 4.75 \sqrt{\frac{D}{\bar{P}}}$$

The OL is constrained such that if $4.75 \sqrt{\frac{D}{\bar{P}}} > D$, $OL = D$.

(b) If the item has an estimated unit price, then

(1) CONUS divisions: OL=15 DOS

(2) Europe divisions: OL=30 DOS

d. The model provides the following performance measures for both current and proposed criteria, broken out by materiel category and essentiality code.

(1) Demand accommodation, both current month and cumulative

(2) ASL turbulence, both current month and cumulative (Update mode only)

(3) ASL size

(4) Dollar value of RO

(5) Weight of RO

(6) Cube of RO

APPENDIX I
COORDINATION

I-1. The following addressees concurred without substantive comment:

- a. LOGC (ATCL-TA).
- b. USA Ordnance Center and School.
- c. 3d Infantry Division.
- d. HQ XVIII Airborne Corps.
- e. HQ FORSCOM (AFLG-SMS) (contingent upon results of field validation).
- f. HQ USAREUR & 7th Army.

I-2. The forthcoming implementation of the DOD Retail Inventory Management Stockage Policy (RIMSTOP) scheduled for late 1981, precludes implementation of the concept in DS4. The recommendations were changed and Appendix K (DS4 Systems Change Request) deleted to reflect this situation. The following addressees provided comments concerning implementation of the concept in DS4:

- a. HQ 8th Army.
- b. USA Quartermaster School.
- c. LOGC (ATCL-SP).
- d. 3d Armored Division.

I-3. HQ TRADOC withheld concurrence pending the results of the field validation effort.

I-4. The following comments, relative to Appendix J (AR 710-2 change), were provided by HQ, USARJ:

- a. Expand the scope of the concept to include nondivisional DSUs.

Not incorporated. Nondivisional DSUs are presently operating under the NCR-500 system. As a result, input data for the Stockage Criteria Model must be manually generated. In view of the magnitude of the task, this expansion of the scope is not economical. In the near future, DS4 nondivisional will be extended which will invalidate this concept.

- b. Para 7-2b, AR 710-2, stipulates that installation accounts on DSS will use performance measures applicable to DSUs. A modification to current SAILS programs is required to provide separate performance data.

Not incorporated as stated. Incorporated in the form of a change to AR 710-2.

I-5. The US Army Missile and Munitions Center & School provided the following comments.

a. Our principal concern is that the Essential Repair Parts Stockage List (ERPSL) described in AR 710-2 not be affected.

This effort will not affect nondemand supported stockage procedures and policies, such as ERPSLs, in any way.

b. In addition, we are concerned about this evaluation not addressing operational readiness.

This effort did not address operational readiness due to an inability to isolate and quantify the effect of the proposed policy on operational readiness rates.

I-6. Both Eighth US Army and US Army Materiel Systems Analysis Activity (AMSSAA) stated that a study should be made of the validity of AMDF essentiality codes. This was done using a sample of 4000 records drawn from 3d Armored Division's "NORS Causer" file. USAMRSA, Lexington, KY, provided end item applications of these NSNs and grouped them by end item application. Research by the schools having maintenance proponency for each end item indicated an essentiality code accuracy of 97.6 percent.

I-7. 3d Armored Division requested that paragraph 3-27a(2)(c) of the proposed change to AR 710-2 be revised to allow the Division Commander or division level general staff to apply a less stringent addition/retention criteria than the one selected by the Logistics Center model. Changes in the demand pattern and main warehouse workload may require immediate application of a less stringent criteria for nonessential items. A management level of four demands below the selected criteria would provide the flexibility necessary to avoid any adverse impact on the division readiness.

Not incorporated. This represents a major departure from existing stockage policy which states that division-level general staff may apply a more stringent stockage criteria but less stringent stockage criteria must be approved by HQDA. This change is outside the scope of the present effort.

I-8. HQ, WESTCOM provided the following comments.

The accommodation goal for essential lines should be low, not high, and the goal for nonessential lines should be high. The inference is that demand supported stockage will include nonessential lines and will perform well. Segregating the essential lines will isolate those lines that are stocked purely for essentiality--lines with low demands--from nonessential lines that are stocked purely for high performance. This will yield a lower accommodation rate for essential lines, and a higher rate for nonessentials.

In fact, an ASL which is totally demand supported has to outperform an ASL which is partly nondemand supported.

Essentiality coding may not be the way to find true essentiality. Only if there is a 1:1 relationship between system deadlining parts and essentiality codes will the codes be helpful. On the other hand, there are essential lines that would be used so seldom, even in heavy combat, as to make their stockage below theater level a waste of money and space. This would suggest that the segregated stockage list should include only those nondemand supported essential lines that are predicted to have high combat utilization rates.

In light of the above, recommended ASL performance goals might be:

	<u>Essential</u>	<u>Nonessential</u>
Accommodation	50%	80%

Not incorporated. Para 7-3a, AR 710-2, defines demand accommodation as follows:

$$\% \text{ Demand Accommodation} = \left(\frac{\text{Valid ASL Demands}}{\text{Total Valid Demands}} \right) \times 100$$

or the percent of total demands which are for ASL items.

Thus, we see that, as the number of demands for ASL items rises, so does demand accommodation. If essential demand accommodation is set at 50 percent, then at least 50 percent of demands for essential items must be passed to a higher source of supply, whereas if it is set at 80 percent, at least 20 percent of essential demands must be passed.

I-9. HQ, DARCOM provided the following comments:

a. The proposed stockage between the 2d and 3d Armor Divisions appears to vary beyond what is expected for similar type units for common, essential type items.

There are major differences between these two divisions' ASLs in terms of size, R0 dollar value, weight, and cube. The major portions of these differences are caused by differences in demand streams resulting from the fact that the 2d Armored Division has one full brigade plus supporting units, aggregating approximately 1/3 of the division, on detached duty in Germany. Demands from these activities could not be captured. Absence of these demands from the demand stream would affect both range of stockage, in that fewer items would qualify for addition to the ASL, and depth of stockage, in that less of each item would be stocked.

b. The 82d Airborne Division weight gain (pounds) within the R0 is not consistent with other units profiled.

This is due to the fact that the 82d Airborne Division is presently using variable add/retain criteria. See note, figure 2-4.

I-10. USALOGC (ATCL-OSF) presented the following comments.

- a. Indicate performance goals with inequality signs for clarity, e.g., Demand Accommodation \geq 80 percent.

Not incorporated. Performance goal is the middle of an acceptable range, the upper and lower bounds of which are defined by the management level.

- b. Delete from para B-2 the statement "Results indicate that nonessential stockage in wartime would be virtually nonexistent."

Not incorporated. The ASL Mobility Study, which was completed by the LOGC in March 1978, recommended that Armored, Infantry, and Mechanized (AIM) divisions have the capability to move a 5000-line ASL in the Headquarters & Light Maintenance Company. The recommendations of this study were approved by HQDA in May 1978. The statement was made based on mobility constraints.

I-11. LOGC (ATCL-SP) provided the following comments.

- a. The proposed criteria should state a stockage policy for each type of division, rather than allowing a different stockage policy for each division.

Not incorporated. This course of action makes no allowance for the difference in demand streams between divisions of the same type. For example, the demand stream for an armored division at Ft Hood with one brigade and associated support units in Germany will be entirely different from an armored division in Germany with three brigades on line.

- b. Nonconcur. Stockage policy should be clearly stated in AR 710-2 and not be left to the LOGC to dictate.

Given that add/retain criteria are set to achieve stated performance levels and given the variability in demand streams outlined above, stockage criteria must be set individually for each division. Thus, the stockage policy which will be clearly stated in AR 710-2 is that the LOGC will set ASL add/retain criteria separately for each division.

- c. The EOQ formula shown in para 1-7c is not the same as the one in the DS4 DFSR.

The two formulas are mathematically equivalent.

I-12. USAMSAA stated the following suggested issues for consideration.

- a. Implementation of this proposed policy should include some level of effort to improve the AMDF.

There is an existing procedure for the field to recommend changes to the AMDF using Form DRXCA 917-b (test). This form is a preaddressed franked postcard which is distributed with the monthly AMDF microfiche broadcast. A test of this system indicates that recommendations reach the proper destination and are acted upon.

b. Would combat damage be accommodated by the use of essentiality coding?

Essentiality Code "C" defines a support item whose absence or failure will prevent the end item from performing its intended mission. Therefore, to the extent that peacetime demands exist for these items, they would be on the peacetime ASL. Those items which have no peacetime demands would have to be stocked on a nondemand supported basis. This effort does not recommend any changes to present policies for nondemand supported stockage.

c. Does the exclusion of the three forward support companies and the heavy maintenance company of the Maintenance Battalion introduce any distortion in the likelihood of a mobile ASL being established? How about the exclusion of direct exchange? QSS?

(1) Since all demands within the division were considered, there is no distortion in the overall size, cost, weight, or cube of the ASL. The report does not address the breakout of stocks between the Headquarters & Light Maintenance Company (HLM) and the Forward Support Companies. Heavy Maintenance Companies do not carry an ASL.

(2) There will be no change in DX or QSS procedures as a result of this effort. Thus, if divisions can move their DX and QSS stocks now, they will be able to do so in the future.

d. There are serious reservations about the AMDF data classification of essentiality for wartime and peacetime, and standard pricing.

(1) There is a procedure for the field to recommend changes/corrections to AMDF data set forth in para 12a, above.

(2) Since using units pay the AMDF standard price for materiel, the validity of AMDF standard prices is moot below the wholesale level.

e. The 80 percent accommodation rate for wartime essential items is questionable as being too low.

The ASL size required to attain accommodation levels significantly above 80 percent greatly exceeds present mobility capabilities.

APPENDIX J

DRAFT CHANGE TO AR 710-2

AR 710-2, Materiel Management for Using Units, Support Units, and Installations, August 1971, is changed as follows:

J-1. Add the following at the end of paragraph 1-5h, page 1-2.

The US Army Logistics Center is also responsible for the establishment of Class IX ASL addition/retention criteria for division support commands. Procedures to be followed are outlined in paragraph 3-27a of this regulation.

J-2. Change paragraph 3-27a(2), page 3-13 to read as follows.

(2) The ASL addition/retention criteria are variable between materiel categories and by essentiality code and will be determined as follows:

(a) At intervals of 2 years or at any time when an event occurs which will cause a major, long-term change in the division's demand patterns, each division will provide its most recent 12-month demand history file to:

Commander
US Army Logistics Center
ATTN: ATCL-CFS
Ft Lee, VA 23801

The US Army Logistics Center will select appropriate ASL addition/retention criteria based upon the demand data provided.

(b) The division level general staff is authorized to apply more stringent addition/retention criteria. When such action is taken under these provisions, DA ODCSLOG (DALO-SMS) will be advised through command channels.

(c) Requests for authority to apply ASL addition/retention criteria other than those authorized by (a) or (b) above will be submitted through command channels to HQDA (DALO-SMS), Washington, DC 20310.

(d) Definitions of essentiality codes and procedures for requesting changes of codes for specific items are at Appendix R of this regulation.

J-3. Paragraph 3-27c, line 7, page 3-13. DELETE "5000 line".

J-4. Change paragraph 7-3a(7), page 7-2 to read as follows:

	<u>DSU</u>	<u>< 1 Div</u>	<u>≥ 1 Div</u>	<u>Installation Supporting</u>
Objective				
Essential Items	80%	75%	80%	
Nonessential Items	50%	75%	80%	
Management Level				
Essential Items	75%-85%	70%-80%	75%-85%	
Nonessential Items	45%-55%	70%-80%	75%-85%	

J-5. Change paragraph 7-5b, page 7-3, to read as follows:

b. ASL size. The ASL is a list of all lines authorized to be stocked at a supply support activity. The source of data is the ASL. If operating in an automated mode, refer to systems users' manuals for specific reports containing data. The objective and management level are depicted below:

		<u>Installation</u>	
	<u>DSU</u>	<u>DSS</u>	<u>Non-DSS</u>
Objective	1. Maint Bn	5000 lines	10,000 lines
	a. light division 5500 demand-supported lines		
	b. heavy division 6500 demand-supported lines		
	2. S&T Bn	1000 lines	
	3. S&S Bn		
	(a) S&S Co	1500 lines	
	(b) Rep. Parts Co	1700 lines	
Management Levels	1.a. 4500-6500 lines	4000-6000 lines	8,000-12,000 lines
	1.b. 5500-7500 lines		
	2. 900-1200 lines		
	3.a. 1200-1800 lines		
	b. 1400-2000 lines		

J-6. Add, as Appendix R, the following:

APPENDIX R
ESSENTIALITY CODES
(SOURCE: AR 708-1)

R-1. CODE DEFINITIONS. Essentiality codes are defined as follows:

<u>Code</u>	<u>Explanation</u>
A	Item is essential (end items only)
B	Item is not essential (end items only)
C	Essential. A repair part required to support a maintenance operation at a field maintenance or organizational maintenance level, that must be performed to insure that the end item continues to be capable of performing its intended combat or combat support mission.
D	Safety. A repair part that is not required in support of an essential field maintenance or organizational maintenance function (code C) but is required for operator/crew safety during training and/or in garrison.
E	Legal/Climatic. A repair part that is not required in support of an essential field maintenance or organizational maintenance function (code C) but is required to meet climatic conditions or to meet legal requirements or the requirements of a host nation in an overseas environment.
F	Depot Maintenance. A repair part that is used only in depot maintenance operations.
G	Not Essential. A repair part that is not required in support of an essential field maintenance or organizational maintenance function (code C) or for crew/operator safety (code D) or legal requirements (code E), or deferrable maintenance operation (code J).
J	Deferred. A repair part that is not required in support of an essential field maintenance or organizational maintenance function (code C) but is required to support a wartime deferrable maintenance operation, which would not cause degradation of the end item to the extent that it is unable to perform its mission but must be performed as soon as operational consideration and parts availability permit. Includes servicing type items.

R-2. PROCEDURES FOR REQUESTING CHANGE OF ESSENTIALITY CODES. Recommended changes to essentiality codes will be prepared on Form DRXCA 917-b (test) and forwarded to the US Army Catalog Data Agency, New Cumberland Army Depot, New Cumberland, PA. Form DRXCA 917-b is a preaddressed, franked postcard which is distributed with the periodic AMDF microfiche. Requests for change should include, as a minimum, the NSN, current essentiality code, recommended new essentiality code, and a brief justification for the change.

APPENDIX K

FIELD VALIDATION

K-1. PURPOSE. To field validate the concept following successful completion of the simulation phase of the evaluation. Field validation plan is at Annex I.

K-2. VALIDATION AGENCY. 1st Infantry Division, Ft Riley, KS.

K-3. SCOPE.

a. The validation consisted of establishment, operation, and analysis of the divisional repair parts stockage from 1 June to 31 December 1979 under the following add/retain criteria.

	Essential	Nonessential
Common	5/3	17/9
Missile	3/2	6/1
Aircraft	4/1	6/3

These add/retain criteria are the same as those used for the 1st ID during the simulation phase of the evaluation and were selected according to the criteria set forth in Appendix G.

b. The division operated on the Division Logistics System (DLOGS) with the following unique features:

(1) Quick Supply Store (QSS) procedures were not used.

(2) A FORSCOM-provided preedit program, which edits input documents against the AMDF, was run as a front-end process before each daily cycle.

(3) For the purposes of the field validation, a modified ASL update program was used in order to allow application of the variable add/retain criteria in the automated mode. Functional user instructions for the modified ASL update are at Annex II. DDC run instructions are at Annex III. In addition, a program was developed to produce a stratified demand accommodation report. DDC run instructions and user procedures are at Annex IV.

K-4. ESSENTIAL ELEMENTS OF ANALYSIS.

a. Will the variable stockage criteria concept permit establishment of ASLs achieving desired goals of demand accommodation, turbulence, and size, while retaining combat essential items required during the initial stages of war? If so, what regulatory changes are required?

(1) The desired objectives in overall demand accommodation and common essential demand accommodation were met. Actual common nonessential demand accommodation remained above the projected level of 50 percent due to the fact that, in the initial ASL build process, items which met the retain criterion but did not meet the add criterion were retained on the ASL. Review of the ASL change list for July 1979 indicated a 12 percent increase in nonessential demand accommodation due to this factor. Desired objectives in aircraft and missile categories were not met. The relatively low number of demands in these streams results in very erratic demand accommodation figures. The ODCSLOG Stockage Criteria Model is not a good predictor of demand accommodation if the demand stream contains fewer than 400 NSNs or fewer than 200 demands per month.

(2) The predicted turbulence levels were not met. This was due to the following factors.

(a) As outlined in Appendix H, the ODCSLOG Stockage Criteria Model is a poor predictor of turbulence.

(b) Due to the relatively short duration of the test, turbulence values did not have time to reach a steady state.

(3) The objectives in ASL size were met. At the conclusion of the test, the ASL contained 4458 demand supported lines.

(4) Required changes to AR 710-2 are at Appendix J.

b. Are changes to the Department of the Army stockage policies required to authorize peacetime stockage of that portion of the combat ASL which is not presently on a demand-based peacetime ASL? If so, which ones? No changes are required. AR 710-2 presently provides for addition and retention of nondemand supported items on the ASL.

c. What is the effect on demand accommodation? Based upon 80 percent accommodation for essential items, which make up 67 percent of the demand system and 50 percent accommodation for nonessential items, which make up 33 percent of the demand stream, overall accommodation was predicted to approximate 70 percent. Actual overall accommodation was higher for the reasons outlined in para 3a(1), above. Detailed demand accommodation results are at Annex V.

d. What is the impact on ASL mobility (size)? ASL sizes as of 31 December 1979 are at Annex VI.

e. What is the effect on ASL turbulence? Overall ASL turbulence for the 6-month period was 57 percent. This high figure was due to the factors outlined in para 3a(2), above. Detailed turbulence results are at Annex VII.

f. Are the AMDF essentiality codes appropriate for use in constructing combat ASLs in terms of the stated performance goals and the operational

considerations in ASL mobility? The AMDF codes are appropriate for this use and allow ADP techniques to be uniformly used to establish an essentiality-based ASL. Recommended changes to essentiality codes can be reported to the DARCOM Catalog Data Agency (CDA) on DRXCA Form 917b (test). This form is provided with the monthly AMDF and is also available from USACDA, New Cumberland Army Depot, New Cumberland, PA 17070.

g. What is the extended line cost of the ROs of the validating DISCOM's ASL under AR 710-2 criteria and the variable stockage criteria? Detailed cost data appears at Annex VIII. Of the decrease in RO dollar value, approximately \$200,000 is due to the change in stockage criteria. The remainder is due to changes in ROs of existing ASL lines.

h. What is the effect on the operational readiness statistics? Operational readiness cannot be statistically addressed. Although reported fleet readiness declined in June and July 1979 and has remained at low levels, supply performance statistics do not indicate a correlation. Command emphasis on maintenance and unannounced Inspector General inspections are identified as the prime contributing factors.

i. What are the weight and cube of the ROs of the ASLs under AR 710-2 criteria and variable stockage criteria? Weight and cube data are provided at Annexes IX and X. Respectively, USALOGC data shows a decrease in weight of 56,000 pounds or 13.0 percent and a decrease in cube of 3074 cubic feet or 13.2 percent from the 30 June 1979 current ASL to the 31 December 1979 proposed ASL.

K-5. CONCLUSIONS. That the field validation results closely parallel and strongly corroborate the simulation results.

K-6. RECOMMENDATIONS.

- a. That 1st ID continue to operate under this concept.
- b. That the concept be extended to other divisions throughout the Army on an optional basis.

ANNEX I
FIELD VALIDATION PLAN

K-I-1



DEPARTMENT OF THE ARMY
UNITED STATES ARMY LOGISTICS CENTER
FORT LEE, VIRGINIA 23801

6 JUN 1979

ATCL-CFM

SUBJECT: Variable Class IX ASL Add/Retain Criteria for DISCOMs

SEE DISTRIBUTION

The Mechanized Infantry Division Field Validation Plan for the Variable Class IX ASL Add/Retain Criteria for DISCOMs is herewith transmitted.

FOR THE COMMANDER:

1 Incl
as

[Handwritten signature]
H. W. LASQUEMENT
Colonel, USA
Director, Concepts and Doctrine

DISTRIBUTION:

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HQDA, ATTN: DALO-SMS
Cdr, TRADOC, ATTN: ATCD-S-L
Cdr, USALEA, ATTN: DALO-LER

MECHANIZED INFANTRY DIVISION FIELD VALIDATION PLAN

Variable ASL Add/Retain Policy for Division Support Commands

1. PURPOSE. To evaluate and provide observations and recommendations relative to the suitability of a concept for establishing variable add/retain criteria for Class IX authorized stockage lists (ASLs) of division support commands (DISCOMs) and revised supply performance goals for DISCOM operations.

2. REFERENCES. See inclosure 1.

3. TERMS OF REFERENCE.

a. Problem. AR 710-2, Materiel Management for Using Units, Support Units, and Installations, prescribes supply performance measures and goals for supply activities. There is no differentiation between degrees of combat essentiality by commodity group in performance measures or stockage policies. Additionally, AR 710-2 prescribes a demand-based stockage policy which does not consider item essentiality in stockage eligibility determinations. Experience has shown that adherence to AR 710-2 procedures has not allowed DISCOMs to meet the supply performance goals of that regulation.

b. Impact of the Problem. Because of the AR 710-2 policies and goals, units with a combat service support mission are usually unable to maintain an ASL which consists primarily of items essential for support in combat and for which they can provide mobility. In other words, the ASLs are based on peacetime demands which may justify stockage of "nice-to-have" items while combat essential items are not demand supported for stockage. Compounding the problem, the size of the ASL required to achieve the 80% demand accommodation goal of AR 710-2 using the prescribed policies normally far exceeds the ASL size goal of 5,000 lines for a divisional maintenance battalion. This causes a significant mobility problem for the division. Therefore, if a division maintenance battalion were required to provide combat service support (CSS) using present stockage policies, it would find itself in a situation where it had too many of the wrong items to move. The presence of the wrong items on an ASL would be extremely detrimental to the supported force in the critical initial stages of combat. In addition, having more items than the DSU could move would hamper mobility in a fast-moving combat situation to such an extent that it might well result in destruction/capture of part or all of the DSU combat-essential stocks.

c. Objectives.

(1) To field validate the suitability of a concept for establishing variable add/retain stockage criteria (to include variability by essentiality and materiel category coding) for Class IX ASLs in DISCOMs.

(2) To evaluate the feasibility of using Army Master Data File (AMDF) essentiality coding in constructing a "combat ASL" portion of the total ASL using variable stockage criteria based on the AMDF essentiality and sub-class of supply (materiel category) coding.

(3) To compare the field validation results with ASL supply performance measures after simulation application (LOGC) of AR 710-2 procedures and field application (1st I.D.) of the proposed variable stockage criteria to the same demand history base(s).

(4) To field validate whether Department of the Army stockage policies and supply performance goals should differentiate between degrees of combat essentiality by materiel category, and if so, to propose policy and system changes.

d. Scope. The field validation will be performed over a six month period by one mechanized infantry DISCOM. The criteria and goals to be validated will be based on one year's past demand history. The field validation will concentrate on determining and comparing the relative effects of the proposed variable stockage criteria and performance goals and current AR 710-2 procedures on the base ASLs with respect to demand accommodation, ASL turbulence, and ASL size. The field validation will address aviation, missile, and "common" Class IX supply subclasses and the essentiality categories of

(1) Essential and safety/legal.

(2) Non-essential.

e. Limits.

(1) The field validation will address "range" rather than "depth" of stockage. It will not address demand satisfaction (unless the information derived during the validation provides these statistics as a by-product without significant additional effort). The field validation may address operational readiness aspects, as deemed appropriate by the validating DISCOM. Management intervention (e.g., command adds and deletes) will not be performed during the field validation. The DISCOM class IX ASLs to be used in the field validation will include only the HQ & Lt Mnt Co, the Missile DSU, and the Aviation DSU. Forward support company ASLs will be considered as a part of the HQ & Lt Mnt Co ASL although a separate analysis of these ASLs will be included by the validating DISCOM.

(2) The historical reports generated by the validating DISCOM represent the total ASL performance.

f. Assumptions.

(1) That the variable criteria and proposed performance goals provided to the validating DISCOM by USALOGC will provide improved combat service support.

(2) That the DISCOM selected to perform the field validation will be fully operational on a computer system that will not be replaced during the field validation period.

(3) That the DISCOM can provide sufficient computer time with appropriate priority and funding to support the evaluation program.

(4) That the AMDF essentiality codes will provide sufficiently accurate and complete data to support the variable stockage criteria concept.

(5) A 5-10 percent ASL turbulence is desirable for "demand supported items" to allow for reasonable additions and deletions due to changes in the configuration of the support requirements of the DISCOM.

g. Essential Elements of Analysis (EEA). EEA will, where appropriate, be addressed by selected materiel category (aviation, missile, and "common"); by essentiality category (essential and safety/legal, and non-essential) within materiel categories; by individual divisional DSUs; and by the total division ASL. EEA will include a comparison of the evaluation variable stockage criteria and supply performance goals and current AR 710-2 baseline procedures. Items (1) through (8) are mandatory EEA. Item (9) is desirable if the statistics are readily available from simulation results.

(1) Will the variable stockage criteria concept permit establishment of ASLs achieving desired goals of demand accommodation, turbulence, and size, while retaining combat essential items required during the initial stages of war? If so, what regulatory changes are required?

(2) Are changes to the Department of the Army stockage policies required to authorize peacetime stockage of that portion of the combat ASL which is not presently on a demand-based peacetime ASL? If so, which ones?

(3) What is the effect on demand accommodation?

(4) What is the impact on ASL mobility (size)?

(5) What is the effect on ASL turbulence?

(6) Are the AMDF essentiality codes appropriate for use in constructing combat ASLs in terms of the stated performance goals and the operational considerations in ASL mobility.

(7) What is the extended line cost of the ROs of the validating DISCOM's ASL under AR 710-2 criteria and the variable stockage criteria?

(8) What is the effect on the operational readiness statistics?

(9) What are the weight and cube of the ROs of the ASLs under AR 710-2 criteria and variable stockage criteria?

h. Constraints.

(1) The field validation will be given an appropriate priority.

(2) Performance data updated by the 1st ID DISCOM will be limited to current DLOGS capabilities.

i. Alternatives. The variable stockage criteria and performance goals to be used in the field validation will be determined from output of the DA ODCSLOG Stockage Criteria Model. The selected criteria and goals will be compared with AR 710-2 procedures by the validation sponsor (USALOGC).

j. Measures of Effectiveness.

(1) The field validation variable stockage criteria (variable by essentiality and materiel category), will be compared with the AR 710-2 criteria and the goals proposed for AR 710-2. The prime goals of the stockage criteria evaluation are: to achieve a demand accommodation rate of at least 80 percent for the essential and safety/legal segment; a demand accommodation rate of at least 50 percent for nonessential items; an overall ASL size, to include nondemand supported items, of not more than 6,500 lines for light divisions (airborne and infantry) and 7,500 lines for heavy divisions (mechanized and armor); and an acceptable overall turbulence, not to exceed 20 percent. For the validating DISCOM, items (2)(a) through (2)(c) are mandatory and will be measured against the above mentioned goals. For the validation sponsor, items (3)(a) and (3)(b) are mandatory and will be measured against the above mentioned goals as well as the two sets of stockage criteria. Items (2)(d) and (3)(c) will be a comparison of the two stockage policies if the data are readily available from the field validation results. Item (2)(e) will be measured against base data accumulated prior to the validation start date. Item (3)(d) will be measured for the AR 710-2 "control" ASL.

(2) Measures of effectiveness to be monitored by the validating DISCOM are:

- (a) Overall demand accommodation.
- (b) ASL size broken out by stockage list code.
- (c) ASL turbulence for stockage list code "Q" items (demand supported items).
- (d) Overall ASL line cost.
- (e) Operational readiness variance.

(3) Measures of effectiveness to be monitored by the validation sponsor (LOGC).

- (a) Demand accommodation, ASL size, and turbulence by essentially code and material category group, for the test ASL (based on analytical models used in previous simulations of the validating DISCOM).
- (b) Demand accommodation, ASL size, and turbulence for the AR 710-2 "control" ASL.
- (c) Overall ASL line cost.
- (d) ASL weight and cube.

k. Methodology. The following procedures will be exercised by the validating DISCOM and validation sponsor (LOGC) as noted:

(1) Validation sponsor.

- (a) Utilizing the CMDF subclass of supply code (materiel category) of common, aviation, and missile and the CMDF essentiality codes (essential and safety/legal, and non-essential), the Demand History data will be stratified into six segments by essentiality codes within subclass of supply.
- (b) The DA ODCSLOG Stockage Criteria Model, using the stratified data as input, will produce add/retain criteria for each of the six stratified segments.
- (c) The primary intent of this portion of the field validation is for the validation sponsor to determine the effect that a six month's demand stream will have on the validating DISCOM's ASL under the current criteria. The effects will be measured, as a minimum, against demand accommodation, ASL turbulence, and ASL size by materiel category and

essentially. The above performance statistics will be developed by the validation sponsor for the six months of the field validation period. Cumulative effects of ASL changes due to demand/stockage criteria interaction will be carried forward each month.

(2) Validating DISCOM.

(a) The primary intent of this portion of the field validation is for the validating DISCOM to determine the effect that a six month's demand stream will have under the proposed variable criteria. The validating DISCOM must first develop a program which proposes ASL change based upon essentiality.

(b) The supply performance statistics will be stratified each month by the validating DISCOM to calculate demand accommodation for both the nonessential and essential segments of the ASL. These figures will be provided to both FORSCOM and the validation sponsor.

(c) The effects of the six month's demand stream will be measured as a minimum, against total demand accommodation, ASL turbulence, ASL size, and ASL cost.

(d) The above performance statistics will be developed by the validating DISCOM for the six months of the field validation period. Cumulative effects of ASL changes due to demand/stockage criteria will be carried forward each month.

(3) Field validation results.

(a) The field validation will be performed to determine the relative effect of the variable criteria versus current criteria on the primary performance measures.

(b) Field validation results will provide a base from which to recommend approval or disapproval of proposed AR 710-2 changes.

1. Models.

(1) The DA ODCSLOG-provided "Stockage Criteria Model" will be used by the USALOGC to develop the recommended variable stockage criteria and supply performance goal.

(2) The model to be used in the exercise of actual demand data is one which has been developed for this field validation. It consists of a series of routines which perform the following functions:

(a) Utilizing the division baseline ASL (file ID X07AGK), 12-month base period demand history (file ID X03AGK) and variable stockage criteria,

build test and control ASLs which are free from manager intervention (command adds and deletes). The validating DISCOM will conduct normal supply operations (field and garrison) utilizing the test ASL. The USALOGC will process the validating DISCOM demand stream against the control ASL.

(b) Match input data against the CMDF to extract essentiality codes, subclass of supply (material category) codes, unit prices, weights, and cubes;

(c) Compare most recent 12 months demands against both current and proposed add/retain criteria and add/delete items from the test and control ASLs.

(d) Accumulate total statistics for the test ASL in the following areas:

1. Overall demand accommodation.
2. Overall ASL turbulence.
3. Overall ASL size.
4. Overall ASL cost.

(e) Accumulate statistics by essentiality and materiel category for the control ASL in the following areas:

- (1) Demand accommodation.
 - (2) ASL turbulence.
 - (3) ASL size.
 - (4) ASL cost.
 - (5) ASL weight.
 - (6) ASL cube.
- (f) Present the above statistics in tabular form.

m. Related Studies.

(1) Evaluation Plan: Variable ASL Add/Retain Policy for Division Support Commands. (53818)

(2) Recommended ASL Addition Management System (RAAMS) of the 82d Abn Div (no ACN).

(3) DA ODCSLOG evaluation of 82d Abn Div Combat ASL using the Stockage Criteria Model (no ACN).

n. Criterion of Choice. Criterion of choice will be selection and recommendation of the alternative stockage policies which best meet or exceed AR 710-2 goals while providing the most effective combat service support (CSS). If available, cost and mobility considerations will be included.

4. ENVIRONMENT/THREAT CONSIDERATIONS. No environment or threat considerations are associated with this field validation. The field validation considers item essentiality as a stockage factor to develop an effective ASL for support of the initial stages of combat as envisioned in FM 100-5.

5. SUPPORT AND RESOURCE REQUIREMENTS.

a. Support Requirements.

(1) DA ODCSLOG will provide guidance on the overall field validation effort, participate in the selection of the recommended variable criteria, and provide representation at the in process reviews.

(2) FORSCOM will identify the 1st Infantry Division (Mech) (1st ID Mech) as the validating DISCOM which will perform the field validation and will insure timely and accurate data input and recommendations to DA ODCSLOG. HQ FORSCOM will also provide a member to the IPRs.

(3) TRADOC will provide a member to the IPRs.

(4) 1st ID Mech will provide the IPR chairman, executive secretary, and the manpower resources for the field validation and field validation final report.

(5) USALOGC will provide IPR deputy chairman.

(6) USALOGC Computer Requirements. Computer resources will be provided by TRADOC Data Processing Field Office, Fort Leavenworth, KS. The amount which will be required is not yet known.

(7) 1st ID (Mech/FORSCOM) Computer Requirements. Organic computer resource requirements, plus reproduction of necessary supply files.

(a) Estimated Other Resource Requirements.

1. Manpower (1st ID Mech):

<u>FY/Qtr</u>	<u>Man-Days</u>
79 3	40 (NON-FUNDED)
79 4	25 (NON-FUNDED)
80 1	35 (NON-FUNDED)

2. Manpower (USALOGC):

<u>FY/Qtr</u>	<u>Man-Days</u>
79 3	55
79 4	60
80 1	20

3. Estimated TDY trips to Fort Riley: (three persons per trip, 3 days per trip), four trips.

(b) Data Requirements. The validating DISCOM will provide the following:

1. CLOGS Demand History Summary Tape (File ID X05AGK) each month June through November 1979. The tapes will be as of the end of each month to be received at USALOGC by the tenth duty day of the following month.

2. Master Inventory Record Balance Tape (File No X07AGK) as of 30 Jun 79 and 30 Nov 79 to be received at USALOGC by the tenth duty day after the "as of" date.

6. ADMINISTRATION.

a. Field Validation Sponsor. 1st ID (POC: MAJ McLellan, AFZN-ST-MM-IK, AV 856-5377/4917).

b. Field Validation Agency. US Army Logistics Center.

c. Mailing Address. US Army Logistics Center
ATTN: ATCL-CFM
Fort Lee, Virginia 23801

d. Functional Project Officers (C&D Directorate).
CPT Dale Abrahamsen (Primary)
Mr. G. W. Kropp (Alternate)
AV 687-3745/1945

- e. Technical Project Officer (MIS Directorate). TBD.
 - f. Field Validation Schedule. See Inclosure 2.
 - g. Field Validation IPR. See Inclosure 3.
7. CORRELATION. ACN 53818.

STUDY REFERENCES

1. Administrative References:

- a. AR 5-5, The Army Study System, 5 July 1977.
- b. AR 5-7, Defense Logistics Studies Information Exchange, August 1974.
- c. TRADOC Reg 71-3, Combat Developments Study Writing Guide, June 1977.

2. Technical References:

- a. AR 710-2, Materiel Management for Using Units, Support Units, and Installations, dated August 1971, with change 4, dated May 1977.
- b. FM 38-22, Logistics Selective Management of Secondary Items, December 1965.
- c. DODI 4140.39 Procurement Cycles and Safety Levels of Supply for Secondary Items, July 17, 1970.
- d. AR 725-50, Requisitioning, Receipt, and Issue System.
- e. AR 750-52, Equipment Operationally Ready Standards.
- f. TM 38-L22-15-1, 2, 3 and 4, Class IX (Repair Parts) Supply System.
- g. DOD Dir 4140.44, Supply Management of the Intermediate and Consumer Levels of Inventory, February 1978.
- h. DOD Instruction 4140.45, Standard Stockage Policy for Consumable Secondary Items at the Intermediate and Consumer Levels of Inventory, April 1978.
- i. DOD Instruction 4140.46, Standard Stockage Policy for Reparable Secondary Items at the Intermediate and Consumer Levels of Inventory, April 1978.

FIELD VALIDATION SCHEDULE

<u>Event No</u>	<u>Event</u>	<u>Date</u>
1	FORSCOM identify 1st ID (Mech) DISCOM as validating unit	30 Oct 78
2	Initial LOGC/1st ID (Mech) working level conference	13 Mar 79
3	LOGC establish variable criteria for designated DISCOMs and simulate monthly performance for the base period	23 Mar 79
4	Final LOGC/1st ID (Mech) working level conference	12 Jun 79
5	1st ID (Mech) Begin Field Validation	1 Jul 79
6	IPR meeting - Initial Results	16 Aug 79
7	IPR meeting for evaluation of mid-point field validation results	25 Oct 79
8	IPR meeting - evaluation of results	20 Dec 79
9	1st ID (Mech) complete field validation	31 Dec 79
10	IPR review final field validation results	15 Jan 80
11	FORSCOM/1st ID (Mech) provide field validation final report and recommend approval/disapproval of draft revision of AR 710-2 and System Change Request (SCR) for Direct Support Unit Standard Supply System (DS4) to DA ODCSLOG/LOGC	1 Feb 80
12	DA ODCSLOG staffing completed	15 Feb 80
13	Draft AR 710-2 revision and DS4 SCR for approval/disapproval by DA ODCSLOG	1 Mar 80

IN PROCESS REVIEW (IPR)

IPR Composition:

Chairman (to be designated by 1st ID Mech)
Deputy Chairman (to be designated by USALOGC)
Executive Secretary (provided by 1st ID Mech)
Members:

DA ODCSLOG
HQ TRADOC
HQ FORSCOM
USAOCCS
USAQMS
USALOGC

Observers: Observer status will be offered to DARCOM.

ANNEX II
FUNCTIONAL USER INSTRUCTIONS FOR MODIFIED
ASL UPDATE PROCESS

K-II-1

CLASS IX REPAIR PARTS SYSTEM

SECTION X. PLL/ASL MAINTENANCE

1. The following procedures replace page C-103.1 and provide instructions for updating the ASL with Variable Class IX ASL Criteria for DISCOMS(COMBAT ASL).
2. To improve the quality of the ASL Change, insure that catalog change is processed prior to the ASL Change Process.
3. QSS items reverting to detailed accounted ASL have no detailed accounted demand history. As these items may still be needed, although at a demand level insufficient to maintain the item as QSS, provide the lines with a SLC date change to preserve the items as ASL for a time adequate to determine if demand for the items exist.
4. CAUTIONS: DLOGS has several uncorrected ASL Change Process faults. Insure that the following are corrected prior to input:
 - a. ADDS:
 - (1) All cards are proposed with a Distribution of Stockage Code (DSS) of "1". If the line is recoverable or a code other than "1" is routinely used, have the card repunched with the correct DSS.
 - (2) If the demands for a common, aircraft, or missile item have been gathered under the wrong commodity, correct the M1 (cc 22) and the M2 (cc 3). Prepare an M2 for the main DSU if common items are proposed for addition as aircraft or missile. Destroy the M2 for the main DSU (extract the ROP, RO and SL from the main DSU to the peculiar DSU) if peculiar demands are recorded as common. Also insure that the addition criteria for the corrected commodity is met prior to accepting the add. Also check to insure that the item is not already on the correct ASL. If it is, destroy all M1 and M2 proposals.
 - (3) Unit of Issues for adds come from the next stocked line. As this is often different from the U/I of the proposed add, carefully check the M1 against the M2 and repunch the M2 with the corrected (from the M1) Unit of Issue.
 - (4) All adds require a stock location.
 - (5) No unserviceable add proposals are made. If the line is recoverable (a sort of M1 proposals can assist identification), prepare an unserviceable M2 balance record addition.
 - b. CHANGES TO STOCKED:
 - (1) Changes are proposed without DSS codes. If the change is from fringe, add the proper DSS code to the M2.
 - (2) Changes are proposed without "SIC date change". Add the correct date.
 - (3) Check to insure that the correct price and PSC are recorded for fringe items. If not, add the correct price/PSC to the change card.

C-103.1.1

Figure C-103.1 Processing ASL Change Listings

CLASS IX REPAIR PARTS SYSTEM

SECTION X. PLU/ASL MAINTENANCE

- (4) If the line is recoverable, prepare an M2 add for the unserviceable record.
 - (5) If the lines is currently stocked, "initial stock" for example, an M1 record already exists so destroy the M1 add proposal.
- c. CHANGES TO NON-STOCKED:
- (1) Changes are proposed without a DSS code. Add a "P" in cc 2 for all changes to fringe.
 - (2) Add the "SLC date change" (cc 71-74) for all changes to fringe.
 - (3) Delete unserviceable records (change to fringe if stock on hand).
 - (4) Changes are made without regard to SLC date established. Review all changes to fringe and discard those that have not been on the ASL for an entire year.
- d. DELETES:
- Check just before the MIR cycle to insure that the line still requires deletion.

C-103.1.2

Figure C-103.2 Processing ASL Change Listings

CLASS IV REPAIR PARTS SYSTEM

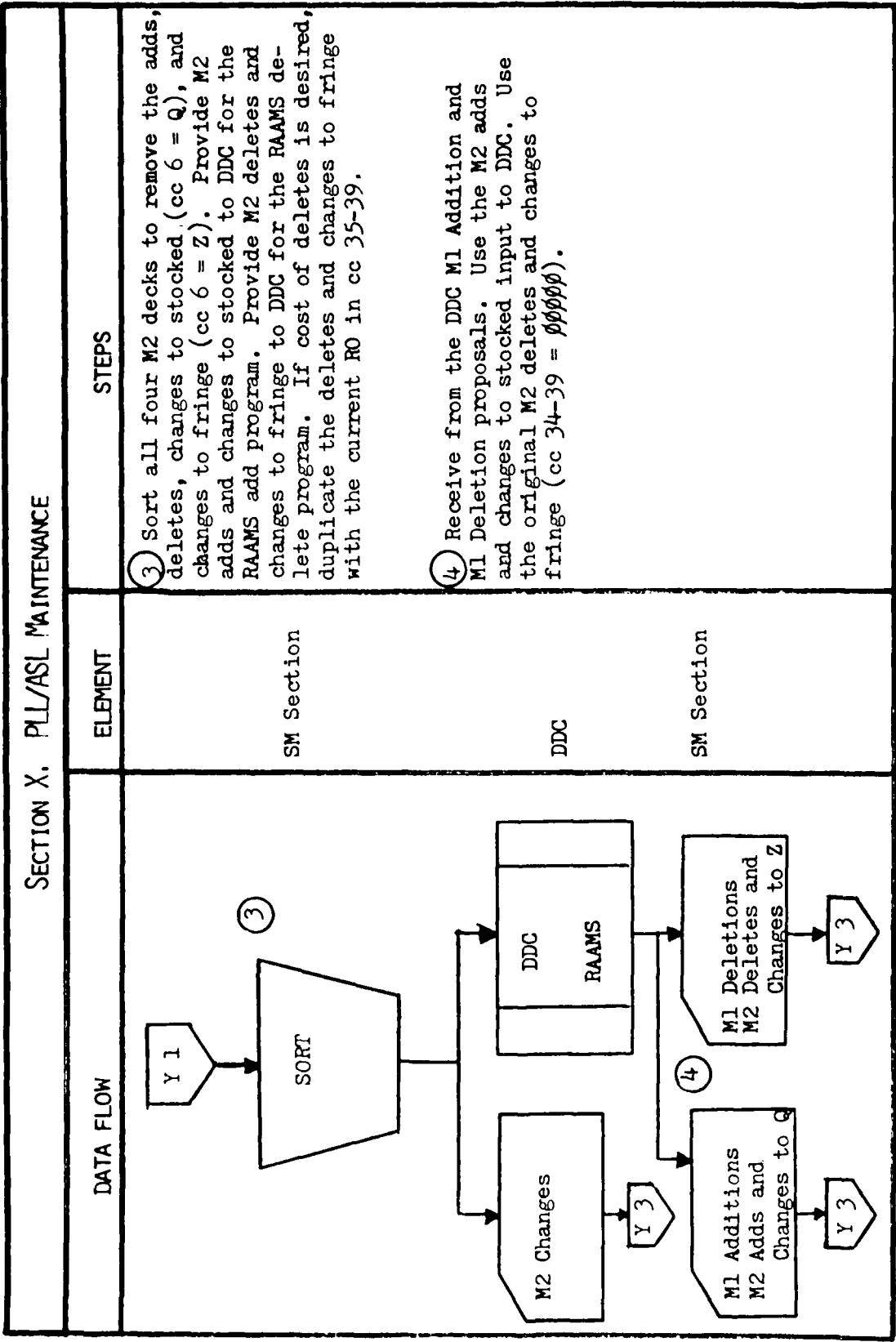
SECTION X. PL/ASL MAINTENANCE

DATA FLOW	ELEMENT	STEPS
<pre> graph TD TSO([TSO]) --> PCards[2 "P" Cards] TSO --> DateCards[2 Date Cards] PCards --> DDC[DDC] DateCards --> DDC DDC --> ASLList[2 ASL Change Listings] DDC --> ErrorList[2 Error Lists] DDC --> CardDecks[4 Card Decks] ASLList --> Y2{Y2} ErrorList --> Y2 CardDecks --> Y1{Y1} </pre>	<p>SM Section</p> <p>①</p>	<p>①. Prepare two "P" parameter cards. One card with "essential" stockage criteria for common, aircraft, and missile and labeled in felt tip pen "Essential P Card". One card with "non-essential" criteria labeled "Non-essential P Card". Also prepare two date cards as follows:</p> <ul style="list-style-type: none"> cc 1-4 Julian Date of ASL Update. cc 11-16 Calendar Date of ASL Update. cc 18-19 "ES" for Essential Card. "NE" for Non-essential Card. <p>CC 80 "D"</p> <p>Label the date cards in felt tip pen "Essential Date Card" and "Non-essential Date Card". Provide the four cards to the DDC with instructions to run Combat ASL Change List.</p> <p>② Receive from the DDC two ASL Change Listings - AGK409E(Essential - ES) and AGK409N (Non-essential - NE). Also receive two NO MATCH CMDF Listings - CASL001 and CASL002 - for demand summary records and balance records that did not match the AMDF. Also receive four decks of M2s - AGK407E(Essential Common), AGK407N(Non-essential Common), AGK408E(Essential A/C and Msl), and AGK408N (Non-essential A/C and Msl).</p>

C-103.1.3

Figure C-103.3 Processing ASL Change Listings

CLASS IX REPAIR PARTS SYSTEM



C-103.1.4

Figure C-103.4 Processing ASL Change Listings

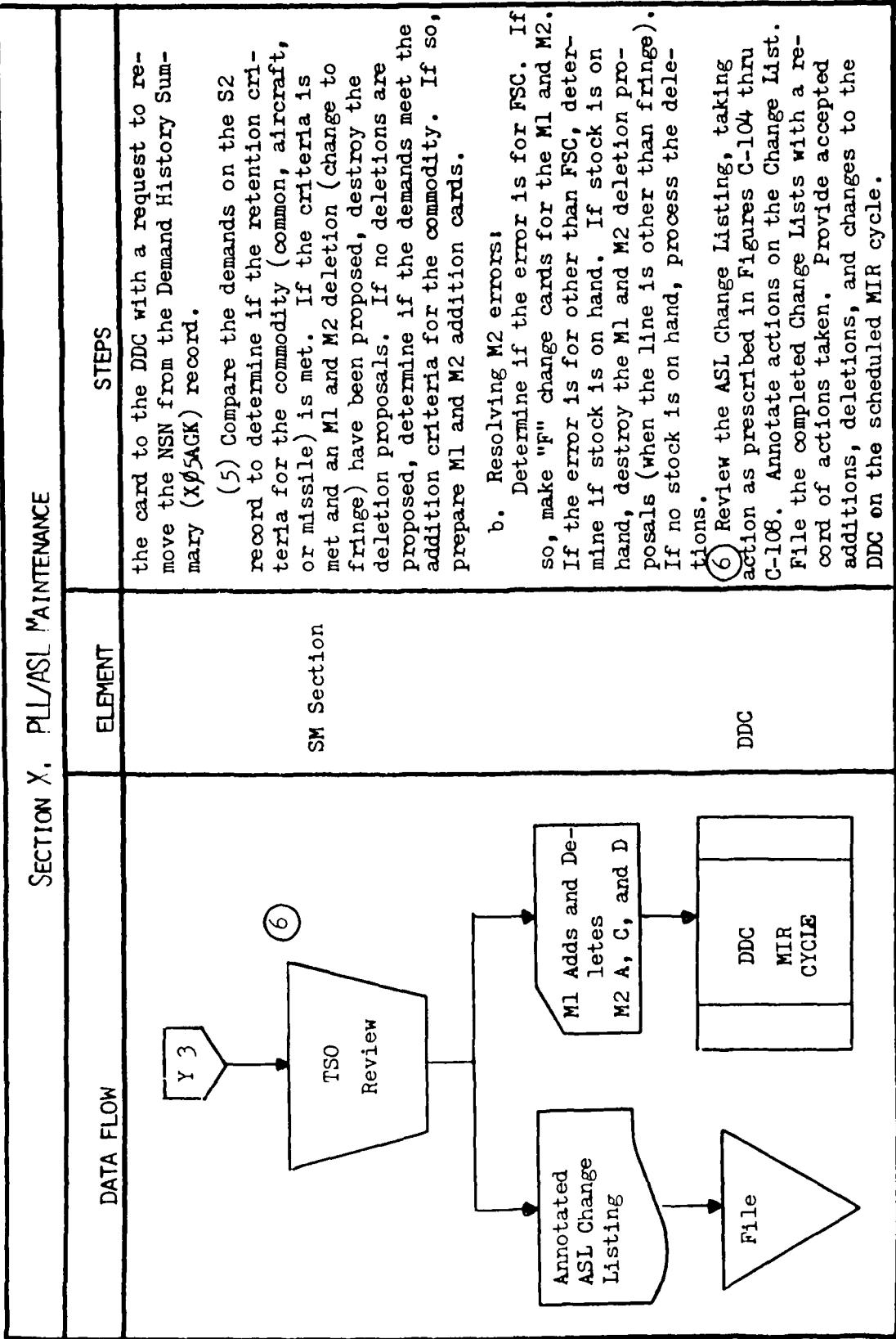
CLASS IX REPAIR PARTS SYSTEM

DATA FLOW	SECTION X. PLL/ASL MAINTENANCE	ELEMENT	STEPS
		<pre> graph TD Y2{Y 2} --> RESOLVE[RESOLVE ERRORS] RESOLVE --> Y3{Y 3} Y3 -- 1 --> S1["(5) Two error lists, Figure C-103.7, are provided. They are identical except for the ASL flags. Use one list to resolve errored ASL combined summary records (S2) and balance records (M2). The format for the S2 record is shown in Figure C-103.8. The format for the M2 is shown in Figure C-3. The records errored because the NSN did not match the Army Master Data File (AMDFF). Check the NIIN of the errored record to determine if the error is correctable."] Y3 -- 2 --> S2["(1) If the error is for FSC, prepare a "CSR" card in the format shown in Figure C-132 with the correct NSN as the new stock number. Place the card in the next catalog response cycle."] Y3 -- 3 --> S3["(2) If the error is caused by inactive status of the stock number, attempt to determine a current NSN and prepare a "CSR" card with the current NSN as the new stock number."] Y3 -- 4 --> S4["(3) NOTE: Catalog change produces duplicate M1s that cannot be functionally removed. Notify DDC to execute "PULLUP" against the M1 (XPFACK) file."] Y3 -- 5 --> S5["(4) If the NSN is erroneous, prepare a card with the bad NSN in cc 8-20. Give"] </pre>	

C-103.1.5

Figure C-103.5 Processing ASL Change Listings

CLASS IX REPAIR PARTS SYSTEM



C-103.1.6

Figure C-103.6 Processing ASL Change Listings

ANNEX III
DDC RUN INSTRUCTIONS FOR MODIFIED ASL
UPDATE PROCESS

K-III-1

DISK DRIVE SET-UP

THIS JOB HAS BEEN DESIGNED TO RUN ON EITHER 1 DISK DRIVE OR 2. LISTED BELOW ARE THE WAYS TO RUN THIS JOB DEPENDING ON HOW MANY DISK DRIVES YOU HAVE AVAILABLE.

1. 1 DISK DRIVE AND 1 PLUG.
 - a. MOUNT DLG935 AND START THE JOB. WHEN YOU GET THE MOUNT MESSAGE FOR DDCPAC, REMOVE DLG935 AND MOUNT DDCPAC IN ITS PLACE. THE JOB WILL THEN CONTINUE AS NORMAL.
2. 2 DISK DRIVES AND 1 PLUG.
 - a. MOUNT DLG935 AND DDCPAC, PUT THE PLUG IN DLG935, START THE JOB. WHEN YOU GET THE MOUNT MESSAGE FOR DDCPAC MOVE THE PLUG FROM DLG935 TO DDCPAC. THE JOB WILL THEN CONTINUE.
3. 2 DISK DRIVES AND 2 PLUGS.
 - a. MOUNT DLG935 AND DDCPAC, PUT PLUGS IN BOTH DRIVES. START THE JOB, NO DISK OR PLUG MANIPULATION IS REQUIRED.

JCL DECK SET-UP INSTRUCTIONS

- *1. GET THE DLOGS AGKD00 DECK FROM THE JCL TRAY. REMOVE ALL CARDS FROM THE FRONT OF THIS DECK TILL YOU FIND THE "/* JOB AGKD00" CARD. TAKE A "/* PROC 1.ROWBOTT" CARD AND PUT IT IN FRONT OF THE "/* JOB AGKD00" CARD. RUN THIS ENTIRE DECK. WHEN YOU HAVE A NORMAL EOJ ON THIS JOB REMOVE THE "/* PROC 1.ROWBOTT" CARD AND PUT THE CARDS YOU TOOK OFF BACK ON THE AGKD00 DECK. PUT THE DECK BACK IN THE JCL DRAWER.
2. GET THE CBT-ASL DECK FROM THE JCL TRAY. LOCATE THE "/* JOB CASLPARM" CARD. WITH THE CYCLE CONTROL SHEET YOU SHOULD HAVE BEEN GIVEN 4 PARAMETER CARDS NAMED:

ESSENTIAL DATE CARD
ESSENTIAL P CARD
NON-ESSENTIAL DATE CARD
NON-ESSENTIAL P CARD

THESE 4 CARDS GO INTO THE JOB CASLPARM AS FOLLOWS: FIND THE CARD MARKED "ESSENTIAL DATE CARD AFTER THIS". FOLLOWING IT SHOULD BE A CARD THAT READS "ESSENTIAL DATE CARD BEFORE THIS". PLACE THE ESSENTIAL DATE CARD THAT CAME WITH THE CYCLE CONTROL SHEET BETWEEN THESE TWO CARDS. PLACE THE OTHER 3 PARAMETER CARDS IN THE DECK IN THE SAME MANNER.

NOTE: IF THERE IS ALREADY A SET OF PARAMETERS IN THE DECK REMOVE AND DESTROY THEM.

3. NOW RUN THE ENTIRE CBT-ASL JOB STREAM INTO THE CARD READER.

**NOTE: THIS STEP MUST BE RUN AS THE FIRST STEP OF CBT-ASL EVEN THOUGH AGKD00 MAY HAVE BEEN RUN EARLIER IN THE DAY.

```
// JOB CASLPARM L2200-
// EXEC MAINT
CATALS G.ESDATE
BKEND      ESSENTIAL DATE CARD AFTER THIS
BKEND      ESSENTIAL DATE CARD BEFOR THIS
CATALS G.ESPCARD
BKEND      ESSENTIAL P    CARD AFTER THIS
BKEND      ESSENTIAL P    CARD BEFOR THIS
CATALS G.NSDATE
BKEND      NON-ESSENTIAL DATE CARD AFTER THIS
BKEND      NON-ESSENTIAL DATE CARD BEFOR THIS
CATALS G.NSPCARD
BKEND      NON-ESSENTIAL P   CARD AFTER THIS
BKEND      NON-ESSENTIAL P   CARD BEFOR THIS
/*
/&
```

2.1

- .1 JOB IDENTIFICATION. PRECASTL.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB AGKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED. ^I
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP.

FIGURE 1

```
// JOB CBT-ASL L2200-
// PROC 1.PRECASL
/*
/&
***JOB CASLPARM GOES HERE***
```

JOB SET UP							
FIGURE .							
JOB ID PRECASL		RUN DATE		IPL DATE		PAGE 1 OF 2 PAGES	
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/ LISPOSITION	
\$COLLATE	X07AGK	U	I		DLG935	ONLINE/ONLINE	
	X07AGK	U	O		WRK1&P	SCRATCH/CASL06	
\$COLLATE	X06AGK	U	I		DLG935	ONLINE/ONLINE	
	X06AGK	U	O		WRK1&P	SCRATCH/CASL08	
\$COLLATE	X04AGK	U	I		DLG935	ONLINE/ONLINE	
L	X04ACK	U	O		WRK1&P	SCRATCH/CASL01	
SCOLATE	FAKE	U	I	CRO	N/A	FAKE	
	X04AGK	U	O		DLG935	ONLINE/ONLINE	

SPECIAL INSTRUCTIONS

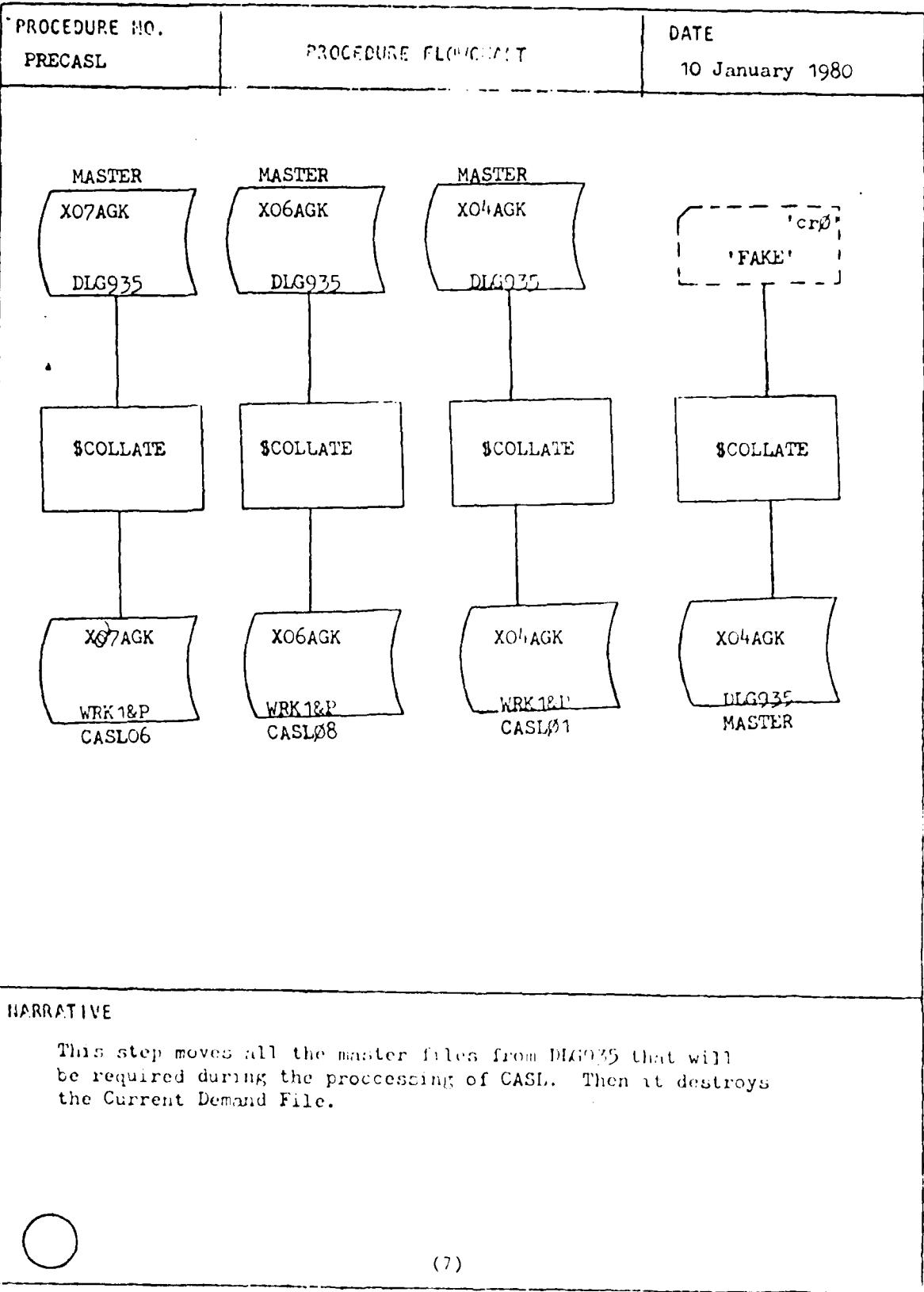
PROGRAM MESSAGES/RESPONSES

FIGURE 2 (Continued)

Page 2 of 2

PROGRAM TITLE	PROGRAM ID
CBT-ASL	PRECASL
DISPLAY	ACTION REQUIRED
X04AGK 4433A EQUAL FILE ID IN VTOC UOUT SYS045 = XXX DLG935 ADAS-01 DDCPAC NOT MOUNTED- IJSYSCLB	TYPE 'DELETE' MOUNT DDCPAC

(b)



(7)

.1 JOB IDENTIFICATION. CASL01

.2 SCHEDULING INFORMATION.

.2.1 SECURITY CLASSIFICATION. UNCLASSIFIED

.2.2 AVERAGE RUN TIME.

.2.3 CORE REQUIREMENTS. 68K.

.2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH

.2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.

.3 DATA CONTROL.

.3.1 EXTERNAL INPUT DATA. N/A.

.3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB ACKD00 AND JOB
CASLPARM, HAVE BEEN RUN.

.3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.

.3.4 PRINTED OUTPUT. USE STANDARD CARRAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.

.3.5 CARD OUTPUT. N/A.

.3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.

.4.4 RECOVERY INSTRUCTIONS. RERUN STEP AFTER RESETTING TAPES.

FIGURE 1

```
// JOB CASL L2200
// ASSIGN EPROC
// EPROC G.CASL01
// EPROC G.STDDATE
// EPROC G.CL9KCARD
// EPROC G.CL9LCARD
// EPROC G.CL9MCARD
// EPROC G.CASL01B
```

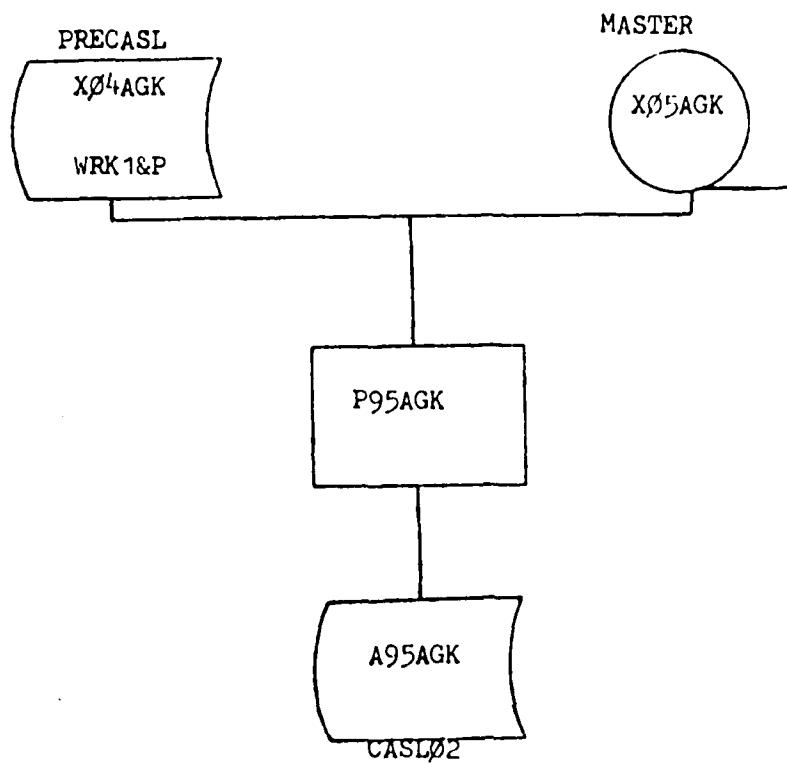
JOB SET UP

FIGURE 2

JOB ID CASL01		RUN DATE			IPL DATE		PAGE 1 OF 1 PAGES		
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO		SOURCE/DISPOSITION		
P95AGK	X04AGK X05AGK A95AGK	U U U	I I O	DK5/SYS045 DK2/SYS042	WRK1&P WRK1&P		ONLINE/ONLINE *LIBRARY/LIBRARY SCRATCH/CASL02		
SPECIAL INSTRUCTIONS									
* MOUNT X05AGK, Demand History Summary									

(10)

PROCEDURE NO.	PROCEDURE FLOWCHART	DATE
CASL01		10 January 1980



NARRATIVE

This step matches the Demand History Summary File against the Current Demand File, creating an updated Demand History Summary File.

(11)

- .1 JOB IDENTIFICATION. CASL02.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB ACKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP.

FIGURE 1

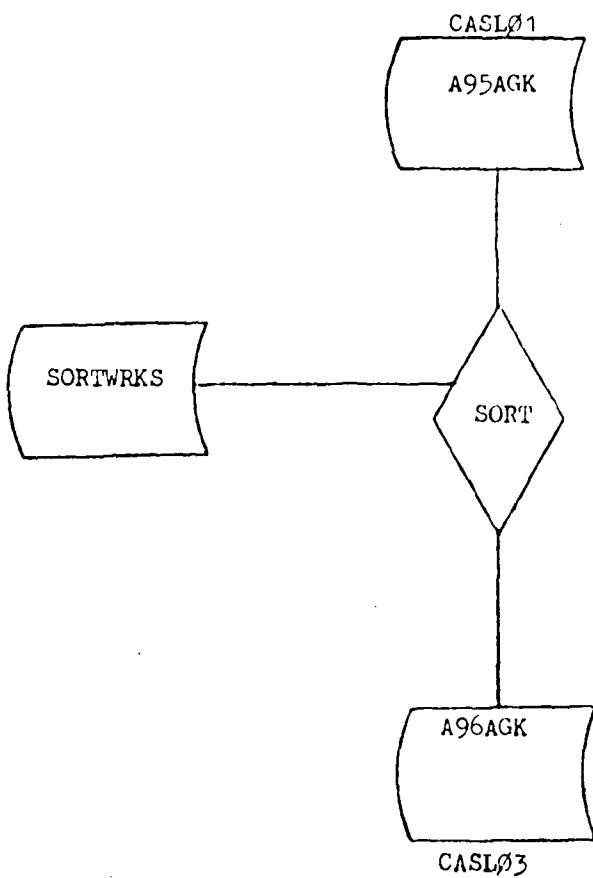
// EPROC G.CASLØ2

(13)

JOB SET UP
FIGURE 2

JOB ID CASL02		RUN DATE		IPL DATE		PAGE 1 OF 1 PAGES	
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/DISPOSITION	
SORT	A95AGK	U	I	DK2/SYS002	WRK1&P	CASL01/ONLINE	
	A96ACK	U	O	DK3/SYS001	WRK1&P	SCRATCH/CASL03	
	SORTWRK1	U	I/O	DK3/SYS003	WRK1&P	SCRATCH/SCRATCH	
	SORTWKR	U	I/O	DK2/SYS004	WRK1&P	SCRATCH/SCRATCH	
SPECIAL INSTRUCTIONS							

PROCEDURE NO.	PROCEDURE FLOW CHART	DATE
CASLØ2		10 January 1980



NARRATIVE

The updated Demand History Summary File is sorted in SII code.

(15)

- .1 JOB IDENTIFICATION. CASL03.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB AGKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 USE STANDARD CARRIAGE TAPE AND PART PAPER. LABEL 'AGK400 - UIC DEMAND SUMMARY LISTING'. SEND TO I/O CONTROL.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP AFTER DESTROYING PREVIOUSLY PRINTED OUTPUT.

FIGURE 1

```
// EPROC G.CASL03  
// EPROC G.STDDATE  
// EPROC G.DOLLARAA
```

JOB SET UP

FIGURE 2

JOB ID CASL03		RUN DATE			IPL DATE		PAGE 1 OF 1 PAGES
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS , ASSIGN.	REEL NO OR VOL SER NO		SOURCE/ DISPOSITION
P97ACK	A96ACK ACK400	U U	I O	DK3/SYS042 PRO/SYSLST	WRK1&P N/A		CASL02/ONLINE I/O CONTROL
SPECIAL INSTRUCTIONS							

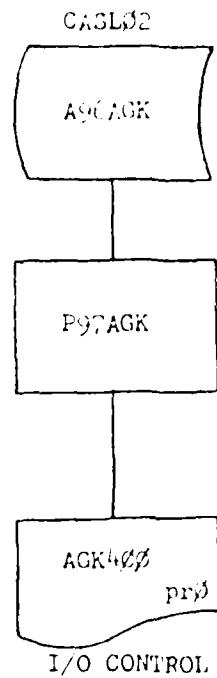
PROCEDURE NO.

CASL03

PROCEDURE FLOW CHART

DATE

10 January 1980



NARRATIVE

UIC Demand Summary Listing. This job creates a listing using the Demand History Summary File.

(19)

FR Form 1350

Previous editions will be used until exhausted.

1 Dec 74

- .1 JOB IDENTIFICATION. CASL04.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- * .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB AGKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP AFTER RESETTING TAPES. YOU MUST SCRATCH ANY CLOSED OUTPUT TAPES.

FIGURE 1

// EPROC G.CASL04

(21)

JOB SET UP
FIGURE 2

JOB ID CASL04		RUN DATE		IPL DATE		PAGE <u>1</u> OF <u>1</u> PAGES	
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/DISPOSITION	
SORT	A96AGK	U	I	DK3/SYS002	WRK1&P	CASL03/ONLINE	
	A98AGK	U	O	DK2/SYS001	WRK1&P	SCRATCH/ONLINE	
	CASL04	U	I/O	DK3/SYS003	WRK2&P	SCRATCH/SCRATCH	
	CASL04	U	I/O	DK2/SYS004	WRK1&P	SCRATCH/SCRATCH	
SORT	A98AGK	U	I	DK2/SYS002	WRK1&P	ONLINE/CASL05-CASL13	
	X05AGK	U	O	SYS001		*SCRATCH/SCRATCH	
	CASL04 SW1	U	I/O	DK3/SYS003	WRK2&P	SCRATCH/SCRATCH	
	CASL04 SW2	U	I/O	DK4/SYS004	WRK1&P	SCRATCH/SCRATCH	

SPECIAL INSTRUCTIONS

* LABEL Tape "X05AGK, Demand History Summary"

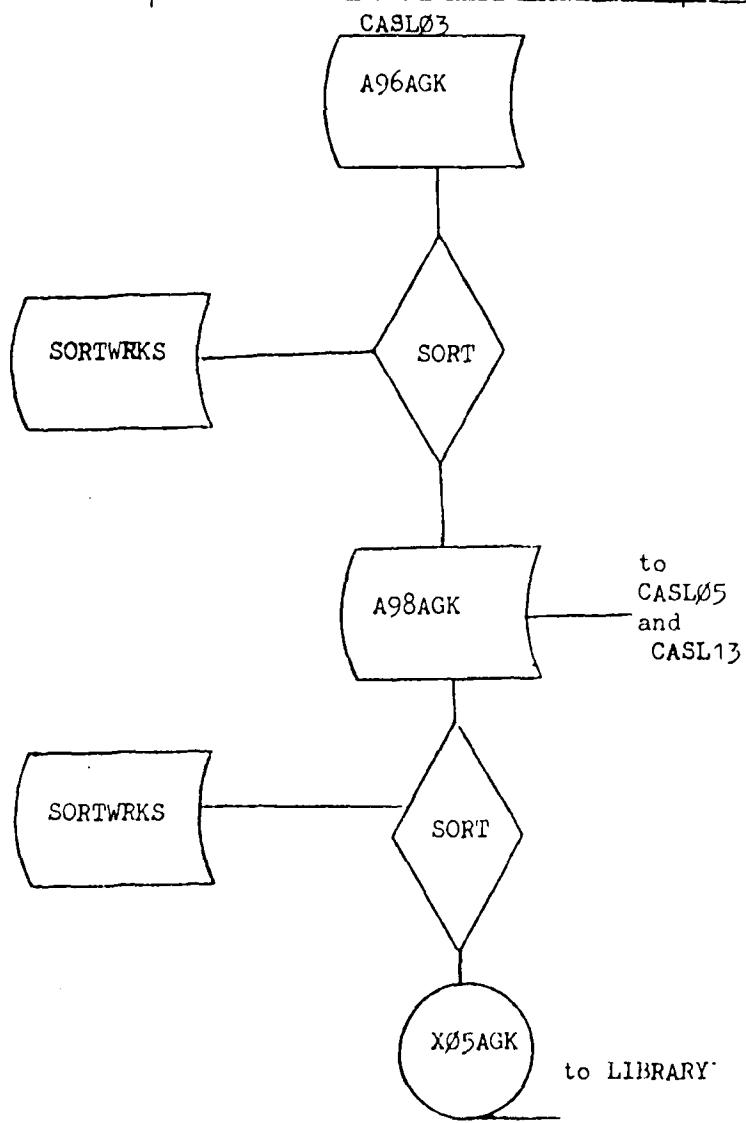
PROCEDURE NO.

CASL 04

PROCEDURE FLOWCHART

DATE

10 January 1980



NARRATIVE

This step sorts the updated Demand History Summary for use in other steps. Then it resorses it to tape as the Demand History Summary File.

(23)

- .1 JOB IDENTIFICATION. CASL05.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB ACKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP.

FIGURE 1

// EPROC G.CASL05
// EPROC G.E5DATE
// EPROC G.E5PCARD

JOB SET UP

FIGURE 2

JOB ID CASLOS		RUN DATE			IPL DATE		PAGE 1 OF 1 PAGES
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO		SOURCE/DISPOSITION
P99AGK	A98AGK A99AGK	U U	I O	DK2/SYS042 DK3/SYS046	WRK1&P WRK1&P		CASL04/CASL13 SCRATCH/CASL06
SPECIAL INSTRUCTIONS							

PROCEDURE NO.	PROCEDURE FLOWCHART	DATE
CASL05		10 January 1980
<pre> graph TD A98[A98AGK] --> P99[P99AGK] P99 --> A99[A99AGK] P99 --> AGK[AGK401E pr0] style A98 fill:none,stroke:none style P99 fill:none,stroke:none style A99 fill:none,stroke:none style AGK fill:none,stroke:none </pre> <p>CASL06</p>		
NARRATIVE <p>This step processes the Updated Demand History file using the essential P parameter card. It sets the byte to recommend the line for addition if it meets the essential add criteria.</p>		
(27)		

- .1 JOB IDENTIFICATION. CASLØ6.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB AGKDØ AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP ^F AFTER RESETTING TAPES. YOU MUST SCRATCH ANY CLOSED OUTPUT TAPES.

FIGURE 1

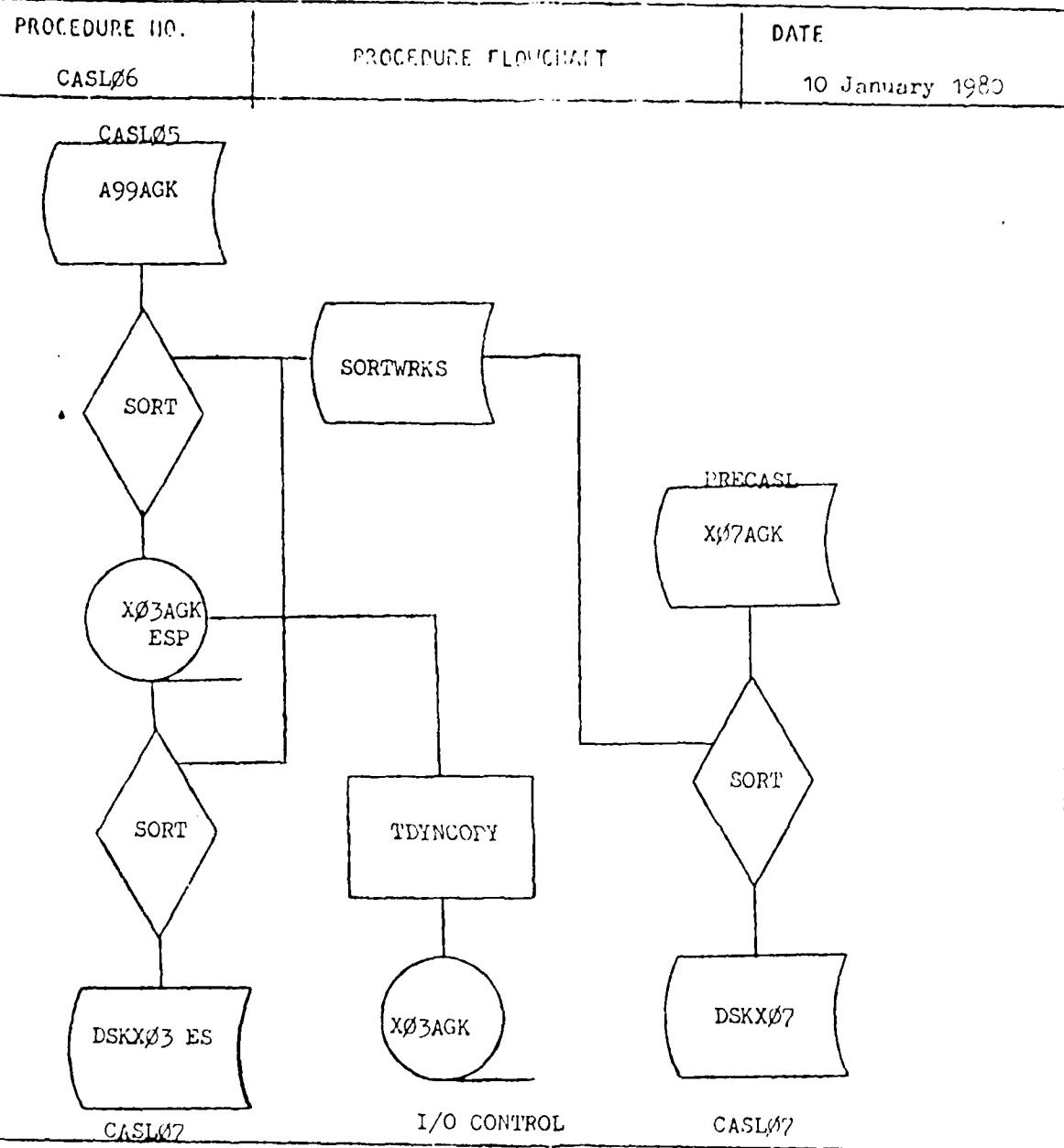
// EPROC G.CASLØ6

(29)

JOB SET UP

FIGURE 2

JOB ID CASL06		RUN DATE			IPL DATE		PAGE 1 OF 1 PAGES			
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO		SOURCE/ DISPOSITION			
SORT	A99ACK X03ACK ESP CASL06 SW1 CASL06 SW2	U U U U	I O I/O I/O	DK3/SYS002 SYS001 DK3/SYS003 DK2/SYS004	WRK1&P WRKZ&P WRK2&P		CASL05/ONLINE *SCRATCH/ONLINE SCRATCH/SCRATCH SCRATCH/SCRATCH			
TDYNCOPY	X03ACK ESP X03AGK	U U	I O				ONLINE/LIBRARY *SCRATCH/LIBRARY			
SORT	X03ACK ESP DSKX03 ES CASL06 SW1	U U U	I O I/O	SYS002 SYS001 DK1/SYS003	WRK1&P WRK1&P		ONLINE/ONLINE SCRATCH/CASL07 SCRATCH/SCRATCH			
SORT	X07AGK DSKX07 CASL06 SW1	U U U	I O I/O	DK1/SYS002 DK1/SYS001 DK1/SYS003	WRK1&P WRK1&P WRK1&P		PRECASL/ONLINE SCRATCH/CASL07 SCRATCH/SCRATCH			
SPECIAL INSTRUCTIONS										
* LABEL TAPE "X03ACK ESP"										
* LABEL TAPE "X03AGK"										



NARRATIVE

This step sorts files for use in the next step. The X03AGK ESP tape is created for back-up purposes. It is then copied to X03AGK so that it can go into standard DLOGS cycles.

(31)

- .1 JOB IDENTIFICATION. CASL07.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB ACKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRAGE TAPE AND PART PAPER.
LABEL 'CASL001 NO MATCH CMDF'. FORWARD TO I/O CONTROL.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP AFTER DESTROYING PREVIOUSLY PRINTED
OUTPUT AND RESETTING TAPES. YOU MUST SCRATCH ANY CLOSED OUTPUT TAPES.

FIGURE 1

// EPROC G.CASL07

(33)

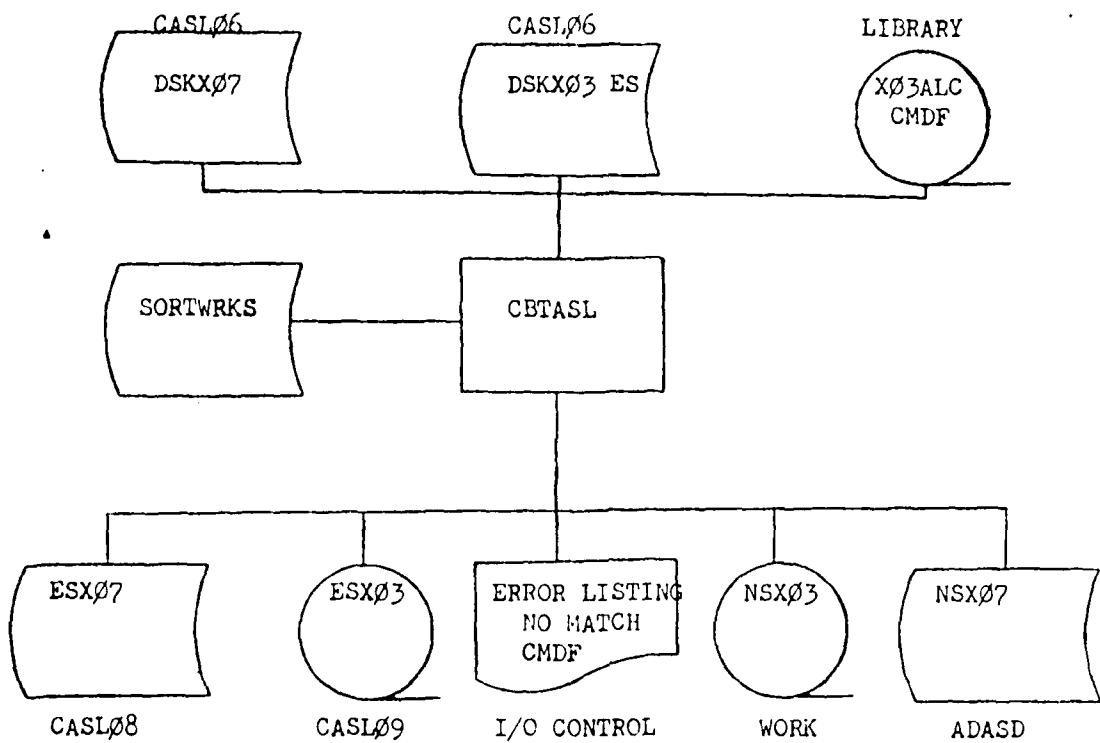
JOB SET UP
FIGURE 2

JOB ID CASL07		RUN DATE			IPL DATE	PAGE 1 OF 1 PAGES	
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/DISPOSITION	
CBTASL	DSKX07	U	I	SYS012	WRK1&P	CASL06/ONLINE	
	DSKX03	U	I	SYS011	WRK1&P	CASL06/ONLINE	
	X03ALC	U	I	SYS010	WRK1&P	LIBRARY/CASL15	
	ESX07	U	O	SYS015	WRK1&P	SCRATCH/CASL08	
	ESX03	U	O	SYS013	WRK1&P	*SCRATCH/CASL08	
	NSX03	U	O	SYS014	WRK1&P	**SCRATCH/SCRATCH	
	NSX07	U	O	SYS016	WRK1&P	SCRATCH/SCRATCH	
	CASL001	U	O	PRO/SYS017	WRK1&P	*I/O CONTROL	
	CASL07 SW1	U	I/O	DK4/SYS001	WRK1&P	SCRATCH/SCRATCH	
	CASL07 SW2	U	I/O	DK4/SYS002	WRK1&P	SCRATCH/SCRATCH	
	CASL07 SW3	U	I/O	DK4/SYS003	WRK1&P	SCRATCH/SCRATCH	
SPECIAL INSTRUCTIONS							
<ul style="list-style-type: none"> * LABEL TAPE "ESX03" * WORK TAPE * LABEL "CASL001 NON MATCH CMDF" 							

PROCEDURE NO.
CASLØ7

PROCEDURE FLOWCHART

DATE
10 January 1980



NARRATIVE

This job matches the xØ3 and XØ7 to the CMDF tape
non-matches are printed. Matches go to their
associated files based on essentiality.

(35)

- .1 JOB IDENTIFICATION. CASL08.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB AGKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP.

FIGURE 1

// EPROC G.CASLØ8

(37)

JOB SET UP

FIGURE 2

JOB ID CASL08		RUN DATE			IPL DATE		PAGE 1 OF 1 PAGES
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/ DISPOSITION	
\$COLLATE	ESX07	U	I	DK5/SYS045	WRK1&P	CASL07/ONLINE	
	BA4AGK	U	O	DK3/SYS041	WRK2&P	SCRATCH/ONLINE	
	AA4AGK	U	O	DK3/SYS041	WRK2&P	SCRATCH/ONLINE	
\$COLLATE	AA4AGK	U	I	DK3/SYS041	WRK2&P	ONLINE/SCRATCH	
	X06AGK	U	I	DK5/SYS045	WRK1&P	PRECASL/ONLINE	
	AA5AGK	U	O	DK3/SYS041	WRK2&P	SCRATCH/CASL10	
\$COLLATE	BA4AGK	U	I	DK3/SYS041	WRK2&P	ONLINE/SCRATCH	
	X06AGK	U	I	DK5/SYS045	WRK1&P	PRECASL/ONLINE	
	AA6AGK	U	O	DK3/SYS041	WRK2&P	SCRATCH/CASL11	
SPECIAL INSTRUCTIONS							

PROCEDURE NO.	PROCEDURE FLOWCHART	DATE
CASL08		10 January 1980
<pre> graph TD A[ESX07] --> B{SELECT} B --> C[X06AGK] B --> D[AA4AGK] B --> E[BA4AGK] B --> F[X06AGK] C --> G{MERGE} D --> G E --> G G --> H[AA5AGK] H --> I[CASL10] F --> J{MERGE} C --> J F --> J J --> K[AA6AGK] K --> L[CASL11] </pre>		
NARRATIVE <p>This step separates the Common MIR Balance Records from the Aircraft and Missile MIR Balance Records. It then merges matching MIR Data Records into each of the two files which will then be used in steps CASL10 and CASL11.</p>		

(39)

- .1 JOB IDENTIFICATION. CASL09.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB AGKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP AFTER RESETTING TAPES.

FIGURE 1

```
// EPROC G.CASL10  
// EPROC G.ESDATE  
// EPROC G.ESPCARD  
// EPROC G.DOLLARAA
```

JOB SET UP

FIGURE 2

JOB ID CASL09		RUN DATE			IPL DATE	PAGE 1 OF 1 PAGES	
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/DISPOSITION	
\$COLLATE	ESX03	U	I	SYS011		CASL07/ONLINE	
	AA7AGK	U	O	SYS046	JRK2&P	SCRATCH/CASL10	
	BA7AGK	U	O	SYS046	JRK2&P	SCRATCH/ONLINE	
	CA7AGK	U	O	SYS046	JRK2&P	SCRATCH/ONLINE	
\$COLLATE	BA7AGK	U	I	SYS046	JRK2&P	ONLINE/SCRATCH	
	CA7AGK	U	I	SYS046	JRK2&P	ONLINE/SCRATCH	
	AA71AGK	U	O	SYS046	JRK2&P	SCRATCH/CASL11	
SPECIAL INSTRUCTIONS							

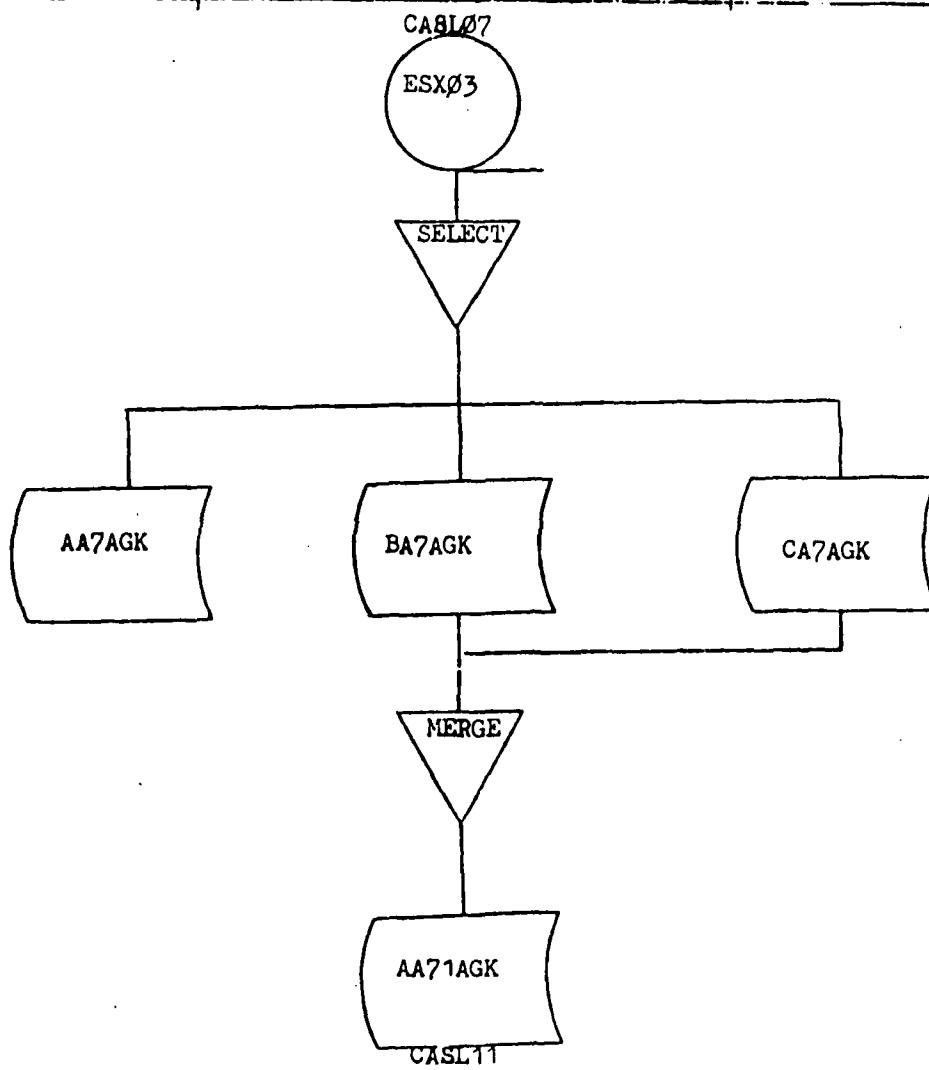
(42)

PROCEDURE NO.
CASLØ9

PROCEDURE FLOWCHART

DATE

10 January 1980



NARRATIVE

This step breaks out the ASL Summary File into three files (Common, Aircraft, Missile). Then the Aircraft and Missile records are merged together to form one file.

(43)

- .1 JOB IDENTIFICATION. CASL10.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB AGKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRIAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.
- .3.5 CARD OUTPUT. USE 2765 FORMS. LABEL OUTPUT 'AGK407E-ASL RECOMMENDED CHANGES--COMMON-ESSENTIAL'. SEND TO I/O CONTROL.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP AFTER DESTROYING PREVIOUSLY PUNCHED OUTPUT.

FIGURE 1

// EPROC G.CASL10

(45)

JOB SET UP						
FIGURE 2						
JOB ID CASL10	RUN DATE	IPL DATE			PAGE 1 OF 2 PAGES	
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/DISPOSITION
PA8ACK	AA5ACK AA7AGK BA8AGK ACK407E	U U U U	I I O O	OK3/SYS041 OK3/SYS046 OK3/SYS041 CPO/SYSPCH	WRK2&P WRK2&P WRK2&P	CASL08/ONLINE CASL09/ONLINE SCRATCH/CASL12 *I/O CONTROL
SPECIAL INSTRUCTIONS						
* OBSERVE LABELING INSTRUCTIONS						

PROGRAM MESSAGES/RESPONSES

FIGURE 2 (Continued)

Page 2 of 2

PROGRAM TITLE	PROGRAM ID
CBT-ASL	CASL10
DISPLAY	ACTION REQUIRED
PØØD CASL10 2765 FORMS NEEDED.	USE 2765 CARDS. LABEL 'AGK4Ø7E'. ASL RECOMMENDED CHG--COMMON ESSENTIAL. FORWARD TO I/O CONTROL.

RD-A193 394

VARIABLE CLASS IX AUTHORIZED STOCKAGE LIST (ASL)
ADD/RETAIN POLICY FOR DIVISION SUPPORT COMMANDS(U) ARMY
LOGISTICS CENTER FORT LEE VA Q M KROPP ET AL.

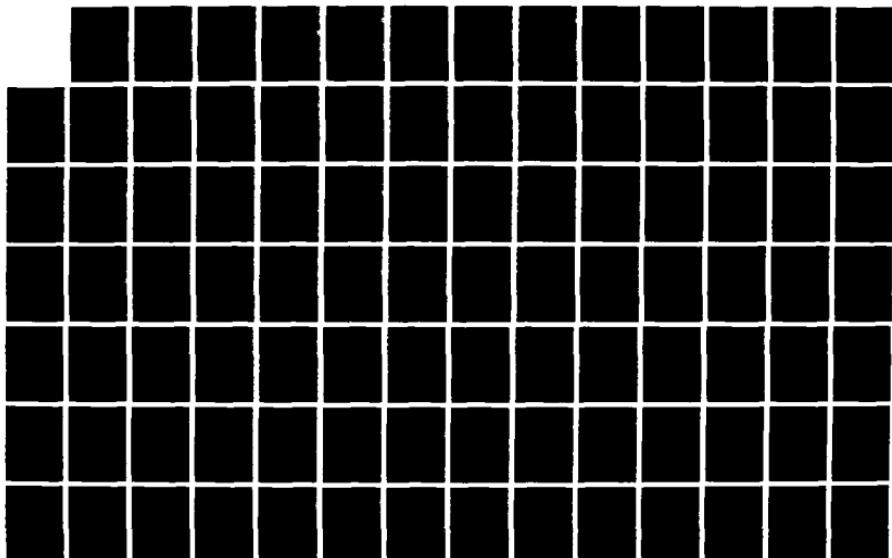
3/4

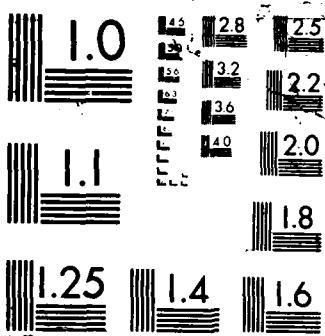
UNCLASSIFIED

01 JUL 88

F/G 15/5

NL





PROCEDURE NO.	PROCEDURE FLOWCHART	DATE
CASL10		10 January 1980
<pre> graph TD A[CASL08 AA5AGK] --> B[PA8AGK] B --> C[BA8AGK CASL12] B --> D[AGK407E 'crf' I/O CONTROL] </pre>		
NARRATIVE <p>This job matches the Common M1/M2 records against the Common ASL Summary Records and produces ASL Recommended Changes as punched output and ASL List Records to go to step CASL12.</p>		

(48)

.1 JOB IDENTIFICATION. CASL11.

.2 SCHEDULING INFORMATION.

.2.1 SECURITY CLASSIFICATION. UNCLASSIFIED

.2.2 AVERAGE RUN TIME.

.2.3 CORE REQUIREMENTS. 68K.

.2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH

.2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.

.3 DATA CONTROL.

.3.1 EXTERNAL INPUT DATA. N/A.

.3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB AGKD00 AND JOB CASLPARM, HAVE BEEN RUN.

.3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.

.3.4 PRINTED OUTPUT. USE STANDARD CARRIAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.

.3.5 CARD OUTPUT. USE 2765 FORMS. LABEL OUTPUT 'AGK408E-ASL RECOMMENDED
CHANGE -AIR/MISSILE ESSENTIAL'. SEND TO I/O CONTROL.

.3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.

.4.4 RECOVERY INSTRUCTIONS. RERUN STEP AFTER DESTROYING PREVIOUSLY PUNCHED
OUTPUT.

FIGURE 1

```
// EPROC G.CASL11  
// EPROC G.ESDATE  
// EPROC G.ESPCARD  
// EPROC G.DOLLARAAC
```

JOB SET UP

FIGURE 2

JOB ID CASL11		RUN DATE		IPL DATE		PAGE <u>1</u> OF <u>2</u> PAGES	
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/ DISPOSITION	
PA8ACK	AA6ACK AA71AGK CA8ACK ACK408E	U U U U	I I O O	DK3/SYS041 DK3/SYS046 DK3/SYS041 CPO/SYSPCH	WRK2&P WRK2&P WRK1&P	CASL08/ONLINE CASL09/ONLINE ONLINE/CASL12 *I/O CONTROL	
SPECIAL INSTRUCTIONS							
* OBSERVE LABELING INSTRUCTIONS							

(51)

PROGRAM MESSAGES/RESPONSES

FIGURE 2 (Continued)

Page 2 of 2

PROGRAM TITLE	PROGRAM ID
CBT-ASL	CASL11
DISPLAY	ACTION REQUIRED
--POOD CASL11 2765 FORMS NEEDED	USE 2765 CARDS. LABEL 'AGK408E ASL RECOMMENDED CHG--AIR/MISSILE ESSENTIAL'. FORWARD TO I/O CONTROL

PROCEDURE NO.	PROCEDURE FLOWCHART	DATE
CASL11		10 January 1980

CASL08

```

graph TD
    A[AA6AGK] --> B[PA8AGK]
    C[AA71ACK] --> B
    B --> D[CABAGK]
    B --> E["'cp0'" / ACK408E"]
    D --> F[CASL12]
    E --> G[I/O CONTROL]
  
```

CASL12

I/O CONTROL

NARRATIVE

This step matches the Aircraft and Missile M1/M2 Records against the Aircraft and Missile ASL Summary Records and produces ASL Recommended Changes as punched output and ASL List Records to go to CASL12.

(57)

- .1 JOB IDENTIFICATION. CASL12.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB ACKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRAGE TAPE AND PART PAPER.
LABEL 'ACK409E-ASI CHANGE LISTING ESSENTIAL'. FORWARD TO I/O CONTROL.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP AFTER DESTROYING PREVIOUSLY PRINTED OUTPUT.

FIGURE 1

```
// EPROC G.CASL12  
// EPROC G.ESDATE  
// EPROC G.DOLLARAA
```

JOB SET UP

FIGURE 2

JOB ID CASL12		RUN DATE			IPL DATE	PAGE 1 OF 1 PAGES	
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/DISPOSITION	
SORT	BA8AGK	U	I	DK3/SYS002	WRK2&P	CASL10/ONLINE	
	CA8AGK	U	I	DK3/SYS003	WRK2&P	CASL11/ONLINE	
	CASL12 SW1	U	I/O	DK2/SYS004	WRK1&P	SCRATCH/SCRATCH	
	CASL12 SW2	U	I/O	DK3/SYS005	WRK1&P	SCRATCH/SCRATCH	
	AAAAGK	U	O	DK2/SYS001	WRK1&P	SCRATCH/ONLINE	
PABACK	AAAAGK	U	I	DK2/SYS041	WRK1&P	ONLINE/SCRATCH	
	AGK409E	U	O	PRO/SYSLST		I/O CONTROL	
SPECIAL INSTRUCTIONS							

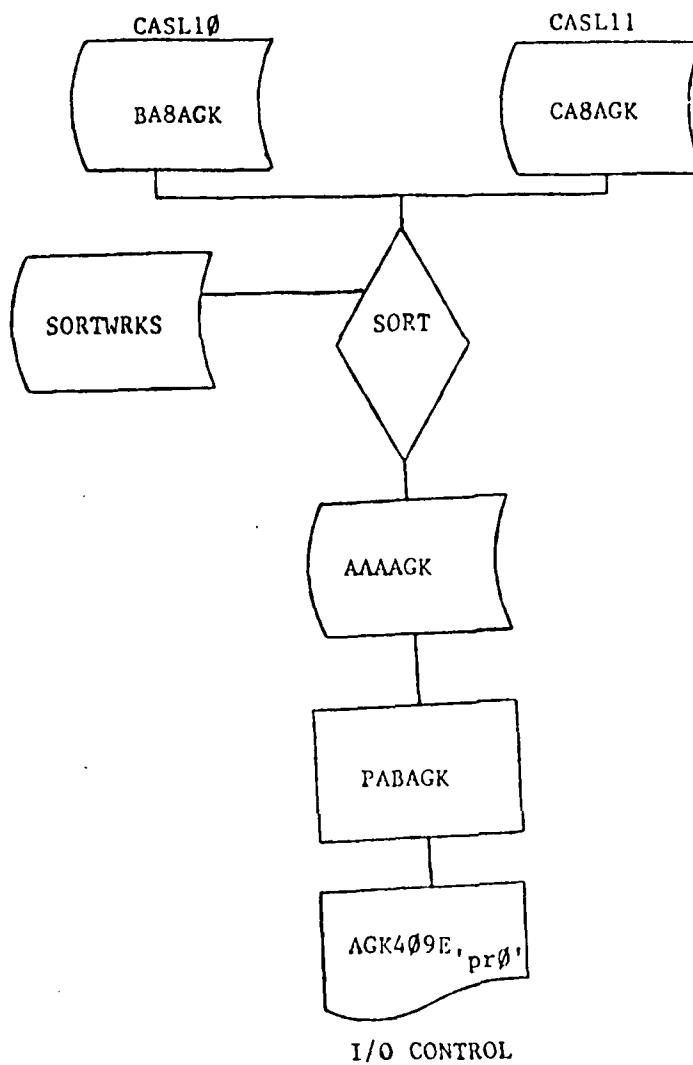
PROCEDURE NO.

CASL12

PROCEDURE FLOWCHART

DATE

10 January 1980



NARRATIVE

This step uses the ASL List Records produced in steps CASL10 and CASL11 to create the ASL Change Listing.

(57)

- .1 JOB IDENTIFICATION. CAS113.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB ACKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP.

FIGURE 1

// EPROC G.CASL13
// EPROC G.NSDATE
// EPROC G.NSPCARD

JOB SET UP

FIGURE 2

JOB ID CASL13		RUN DATE			IPL DATE		PAGE 1 OF 1 PAGES
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO		SOURCE/DISPOSITION
P99AGK	A98ACK A99AGK	U U	I O	DK2/SYS042 DK3/SYS046	WRK1&P WRK2&P		CASL04/ONLINE SCRATCH/CASL14
SPECIAL INSTRUCTIONS							

(60)

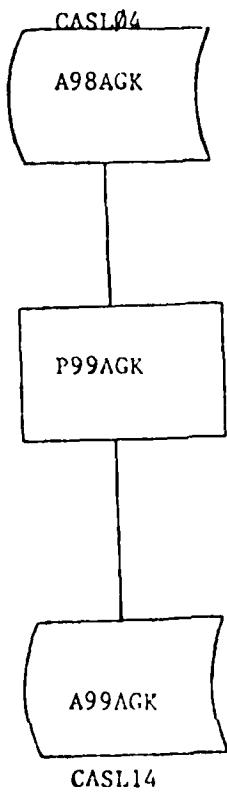
PROCEDURE NO.

CASL13

PROCEDURE FLOWCHART

DATE

10 January 1980



NARRATIVE

This step processes the Updated Demand History File using the non-essential P parameter card. It sets the byte to recommend the line for addition if it meets the non-essential add criteria.

(61)

.1 JOB IDENTIFICATION. CASL14.

.2 SCHEDULING INFORMATION.

.2.1 SECURITY CLASSIFICATION. UNCLASSIFIED

.2.2 AVERAGE RUN TIME.

.2.3 CORE REQUIREMENTS. 68K.

.2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH

.2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.

.3 DATA CONTROL.

.3.1 EXTERNAL INPUT DATA. N/A.

.3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB ACKD00 AND JOB
CASLPARM, HAVE BEEN RUN.

.3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.

.3.4 PRINTED OUTPUT. USE STANDARD CARRAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.

.3.5 CARD OUTPUT. N/A.

.3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.

.4.4 RECOVERY INSTRUCTIONS. RERUN STEP AFTER RESETTING TAPES. YOU MUST
SCRATCH ANY CLOSED OUTPUT TAPES.

FIGURE 1

// EPROC G.CASL14

(63)

JOB SET UP
FIGURE 2

JOB ID CASL14		RUN DATE			IPL DATE	PAGE <u>1</u> OF <u>1</u> PAGES	
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/DISPOSITION	
SORT	A99AGK X03AGK NSP CASL14 SW1 CASL14 SW2	U U U U	I O I/O I/O	DK3/SYS002 SYS001 DK3/SYS003 DK2/SYS004	WRK2&P WRK2&P WRK1&P	CASL13/ONLINE *SCRATCH/ONLINE SCRATCH/SCRATCH SCRATCH/SCRATCH	
SORT	X03AGK NSP DSKX03 NS CASL14 SW1	U U U	I O I/O	SYS002 DK1/SYS001 DK1/SYS003	WRK1&P WRK1&P	ONLINE/LIBRARY SCRATCH/CASL15 SCRATCH/SCRATCH	
SPECIAL INSTRUCTIONS							
* WORK TAPE							

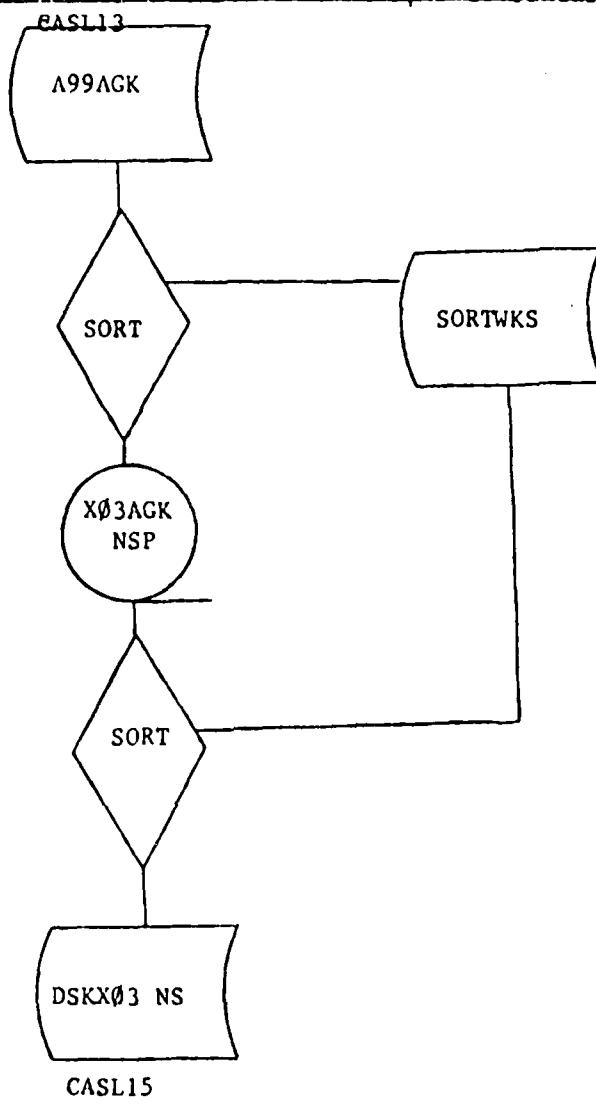
PROCEDURE NO.

CASL14

PROCEDURE FLOWCHART

DATE

10 January 1980



NARRATIVE

This step sorts files for use in the next step. The X03ACK NSP tape is created for back-up purposes.

(65)

- .1 JOB IDENTIFICATION. CASL15.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB ACKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRAGE TAPE AND PART PAPER:
LABEL 'CASL002 NO MATCH CMDF'. FORWARD TO I/O CONTROL.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP AFTER DESTROYING PREVIOUSLY PRINTED
OUTPUT AND RESETTING TAPES. YOU MUST SCRATCH ANY CLOSED OUTPUT TAPES.

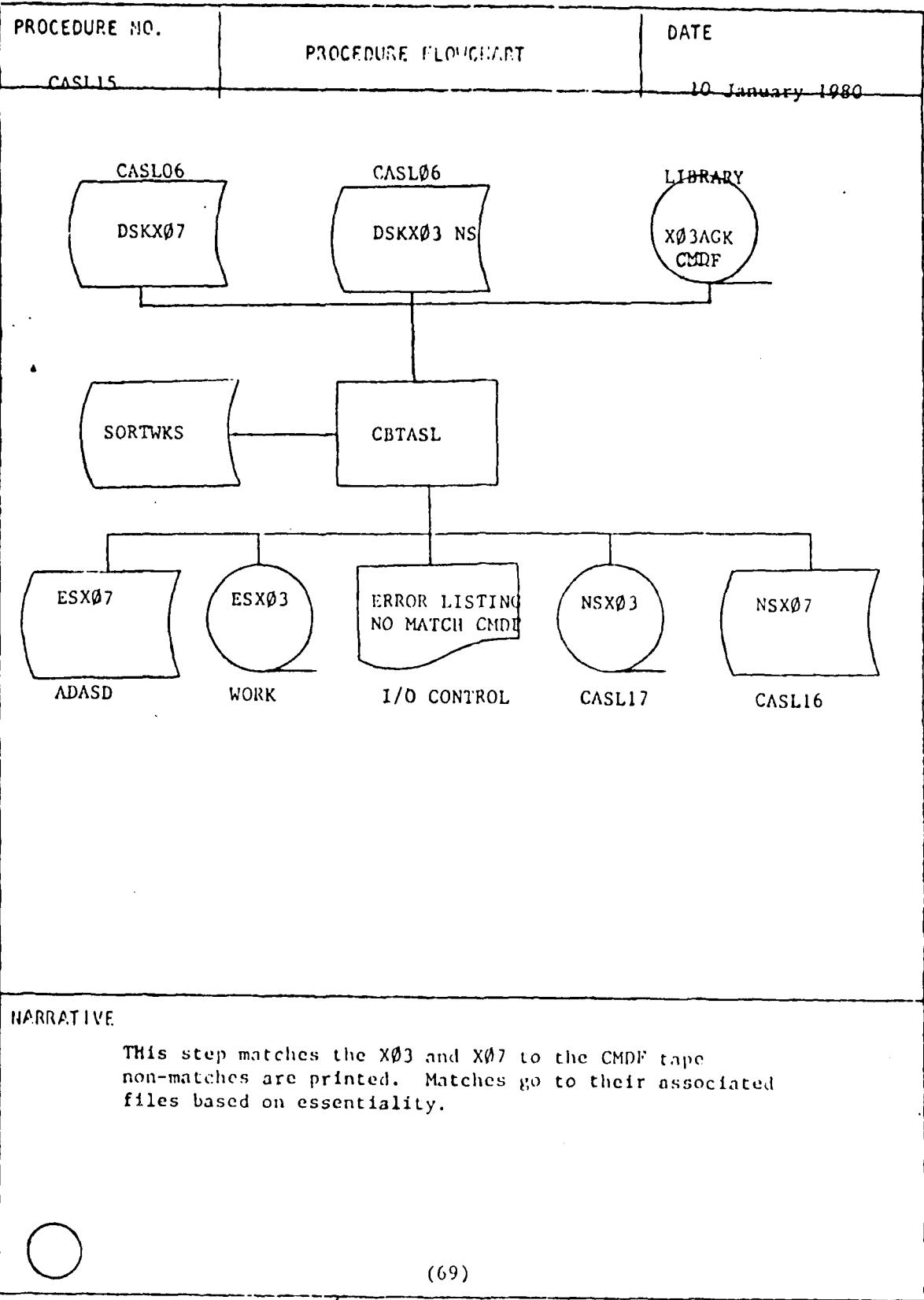
FIGURE 1

// EPROC G.CASL15

JOB SET UP

FIGURE 2

JOB ID CASL15		RUN DATE		IPL DATE		PAGE 1 OF 1 PAGES	
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/ DISPOSITION	
CBTASL	DSKX07	U	I	SYS012	WRK1&P	CASL06/ONLINE	
	DSKX03 NS	U	I	SYS011	WRK1&P	CASL14/ONLINE	
	X03ALC	U	I	SYS010		ONLINE/LIBRARY	
	NSX07	U	O	SYS015	WRK1&P	SCRATCH/SCRATCH	
	ESX03	U	O	SYS013		*SCRATCH/SCRATCH	
	NSX03	U	O	SYS014		*SCRATCH/CASL17	
	NSX07	U	O	SYS016	WRK1&P	SCRATCH/CASL16	
	CASL002	U	O	PRO/SYS017		**I/O CONTROL	
	CASL15 SW1	U	I/O	DK4/SYS001	WRK1&P	SCRATCH/SCRATCH	
	CASL15 SW2	U	I/O	DK4/SYS002	WRK1&P	SCRATCH/SCRATCH	
	CASL15 SW2	U	I/O	DK4/SYS003	WRK1&P	SCRATCH/SCRATCH	
SPECIAL INSTRUCTIONS							
* WORK TAPE							
* LABEL TAPE "NSX03"							
** LABEL "CASL002 NON-MATCH CMDF"							



- .1 JOB IDENTIFICATION. CASL16.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB ACKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP.

FIGURE 1

// EPROC G.CASL16

(71)

JOB SET UP

FIGURE 2

JOB ID CASL16		RUN DATE		IPL DATE		PAGE 1 OF 1 PAGES	
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/DISPOSITION	
\$COLLATE	NSX07	U	I	DK5/SYS045	WRK1&P	CASL15/ONLINE	
	BA4AGK	U	O	DK3/SYS041	WRK2&P	SCRATCH/ONLINE	
	AA4AGK	U	O	DK3/SYS041	WRK2&P	SCRATCH/ONLINE	
SCOLLATE	AA4AGK	U	I	DK3/SYS041	WRK2&P	ONLINE/SCRATCH	
	X06AGK	U	I	DK5/SYS045	WRK1&P	PRECASL/ONLINE	
	AA5AGK	U	O	DK3/SYS041	WRK2&P	SCRATCH/CASL18	
SCOLLATE	BA4AGK	U	I	DK3/SYS041	WRK2&P	ONLINE/SCRATCH	
	X06AGK	U	I	DK5/SYS045	WRK1&P	PRECASL/ONLINE	
	AA6AGK	U	O	DK3/SYS041	WRK2&P	SCRATCH/CASL19	
SPECIAL INSTRUCTIONS							

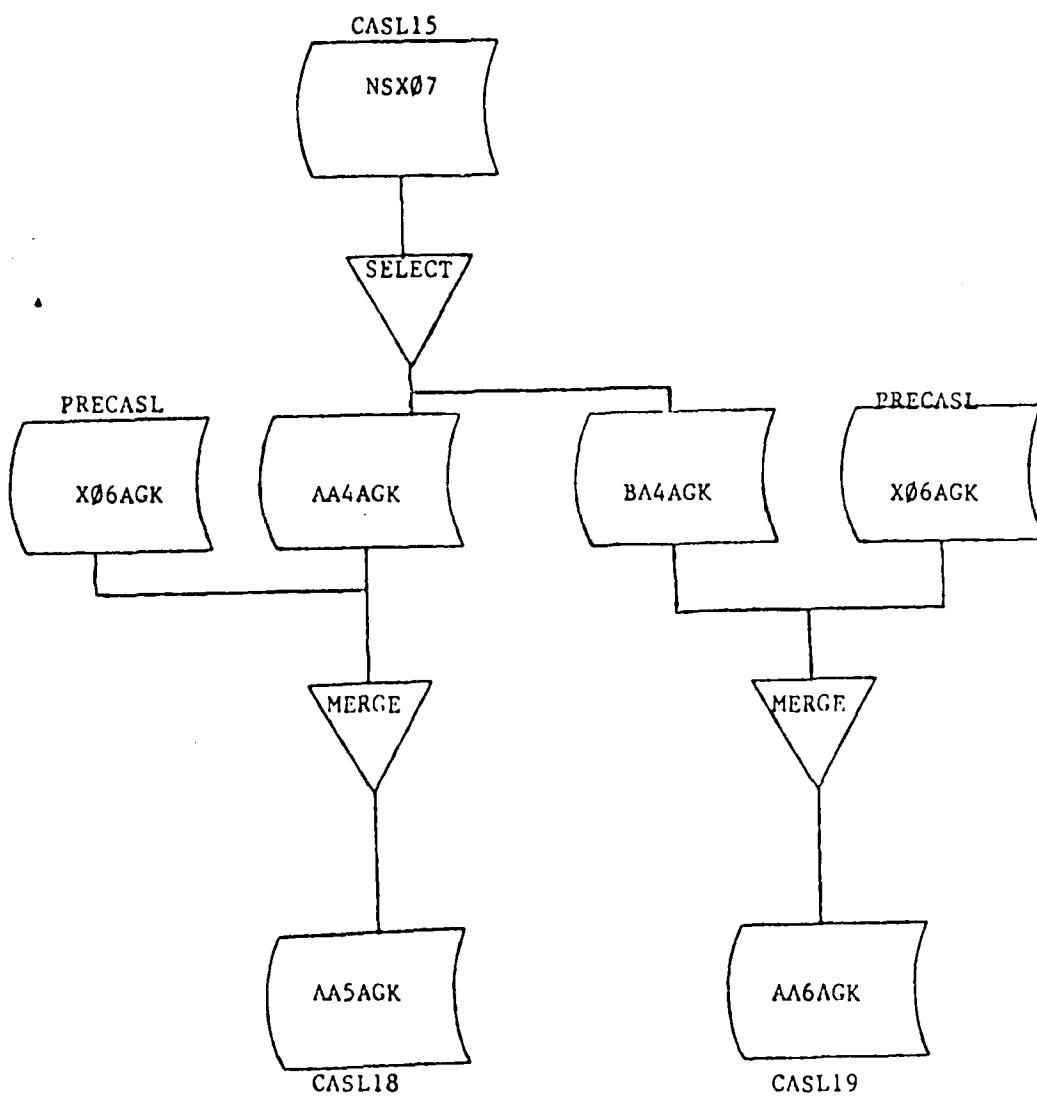
PROCEDURE NO.

CASL16

PROCEDURE FLOWCHART

DATE

10 January 1980



NARRATIVE

This step separates the Common MTR Balance Records from the Aircraft and Missile MTR Balance Records. It then merges matching MTR Data Records into each of the two files which will then be used in steps CASL18 and CASL19.

(73)

- .1 JOB IDENTIFICATION. CASL17.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB ACKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP AFTER RESETTING TAPE.

FIGURE 1

// EPROC G.CASL17

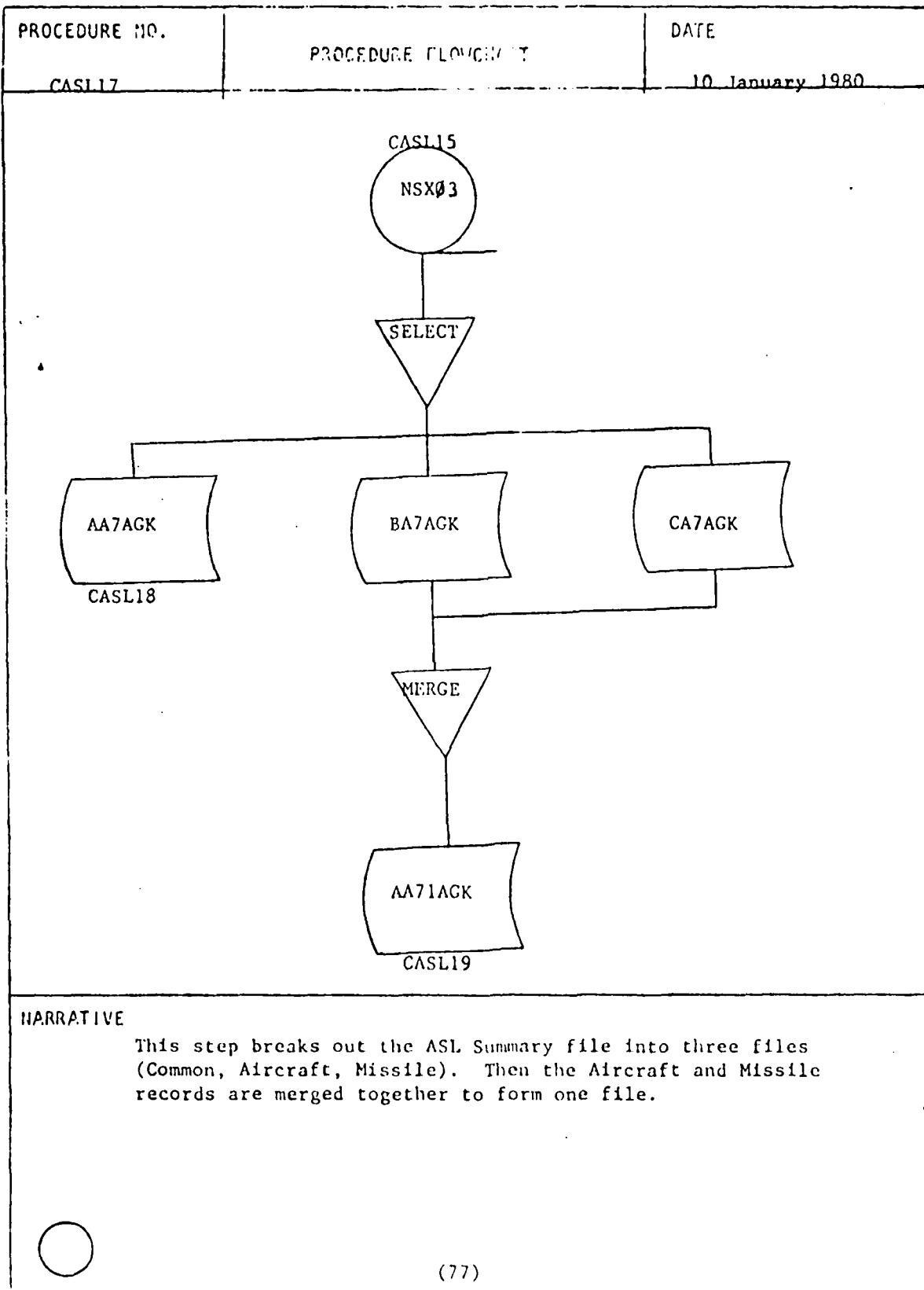
(75)

JOB SET UP

FIGURE 2

JOB ID CASL17		RUN DATE		IPL DATE		PAGE 1 OF 1 PAGES	
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO		SOURCE/DISPOSITION
SCOLLATE	NSX03	U	I	SYS011	WRK2&P		CASL15/SCRATCH
	AA7AGK	U	O	SYS046			SCRATCH/CASL18
	BA7AGK	U	O	SYS046			SCRATCH/ONLINE
\$COLLATE	BA7AGK	U	I	SYS046	WRK2&P		ONLINE/SCRATCH
	CA7AGK	U	I	SYS046			ONLINE/SCRATCH
	AA71AGK	U	O	SYS046			SCRATCH/CASL19

SPECIAL INSTRUCTIONS



(77)

- .1 JOB IDENTIFICATION. CASL18.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD ^{PUNCH} PUN
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB AGKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRIAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.
- .3.5 CARD OUTPUT. USE 2765 FORMS. LABEL OUTPUT 'AGK407N - ASL
RECOMMENDED CHANGES--COMMON NON-ESSENTIAL'. SEND TO I/O CONTROL.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 1
^{FIGURE 1}
RECOVERY INSTRUCTIONS. RERUN STEP AFTER DESTROYING PREVIOUSLY ^{PUNCH} PUN
OUTPUT.

FIGURE 1

```
// EPROC G.CASL18  
// EPROC G.NSDATE  
// EPROC G.NSPCARD  
// EPROC G.DOLLARAA
```

JOB SET UP

FIGURE 2

JOB ID CASL18		RUN DATE		IPL DATE		PAGE 1 OF 2 PAGES			
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/ DISPOSITION			
PA8ACK	AA5ACK AA7AGK BA8AGK AGK407N	U U U U	I I O O	DK3/SYS041 DK3/SYS046 DK3/SYS041 CPO/SYSPCH	WRK2&P WRK2&P WRK2&P	CASL16/ONLINE CASL17/ONLINE SCRATCH/CASL20 *I/O CONTROL			
SPECIAL INSTRUCTIONS									
* OBSERVE LABELING INSTRUCTIONS									

(80)

PROGRAM MESSAGES/RESPONSES

FIGURE 2 (Cont'd. cont'd)

Page 2 of 2

PROGRAM TITLE	PROGRAM ID
CBT-ASL	CASL18
DISPLAY	ACTION REQUIRED
POOD CASL18 2765 FORMS NEEDED	USE 2765 CARDS LABEL 'AGK407N' ASL RECOMMENDED CHG--COMMON NON-ESSENTIAL'. FORWARD TO I/O CONTROL.

PROCEDURE NO.	PROCEDURE FLOWCHART	DATE
CASL18		10 January 1980
<pre> graph TD A[AASAGK] --> B[PA8AGK] C[AA7AGK] --> B B --> D[ACK407N 'cp0'] B --> E[BA8ACK] E --> F[I/O CONTROL] </pre> <p>The flowchart illustrates the sequence of steps in PROCEDURE NO. CASL18. It begins with two parallel steps: AASAGK (CASL16) on the left and AA7AGK (CASL17) on the right. Both lead to a central step, PA8AGK. From PA8AGK, the flow splits into two paths: one leading to ACK407N ('cp0') and another leading to BA8ACK. The BA8ACK path then leads to I/O CONTROL.</p>		
NARRATIVE		
<p>This job matches the Common M1/M2 records against the Common ASL Summary Records and produces ASL Recommended Changes as punched output and ASL List Records to go to step CASL20.</p>		

(82)

- .1 JOB IDENTIFICATION. CASL19
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD ^{F21CH} RU
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB AGKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRIAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.
- .3.5 CARD OUTPUT. USE 2765 FORMS. LABEL OUTPUT 'AGK408N-ASL RECOMMEN
CHANGE-AIR/MISSILE NON-ESSENTIAL'. SENT TO I/O CONTROL.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGU
^{F21CH} R
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP AFTER DESTROYING PREVIOUSLY
PUNCHED OUTPUT.

FIGURE 1

```
// EPROC G.CASL19  
// EPROC G.NSDATE  
// EPROC G.NSPCARD  
// EPROC G.DOLLARAA
```

JOB SET UP

FIGURE 2

JOB ID CASL19	RUN DATE		IPL DATE	PAGE 1 OF 2 PAGES		
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/DISPOSITION
PA8ACK	AA6ACK AA71ACK CA8ACK ACK408N	U U U U	I I O O	DK3/SYS041 DK3/SYS046 DK3/SYS041 CPO/SYSPCH	WRK2&P WRK2&P WRK1&P	CASL16/ONLINE CASL17/ONLINE ONLINE/CASL20 *I/O CONTROL
SPECIAL INSTRUCTIONS						
* OBSERVE LABELING INSTRUCTIONS						

(85)

PROGRAM MESSAGES/RESPONSES

FIGURE 2 (Continued)

Page 2 of 2

PROGRAM TITLE	PROGRAM ID
CBT-ASL	CASL19
DISPLAY	ACTION REQUIRED
--FOOD CASL19 2765 FORMS NEEDED	USE 2765 CARDS. LABEL 'AGK408N ASL RECOMMENDED CHG--AIR/MISSILE NON-ESSENTIAL'. FORWARD TO I/O CONTROL.

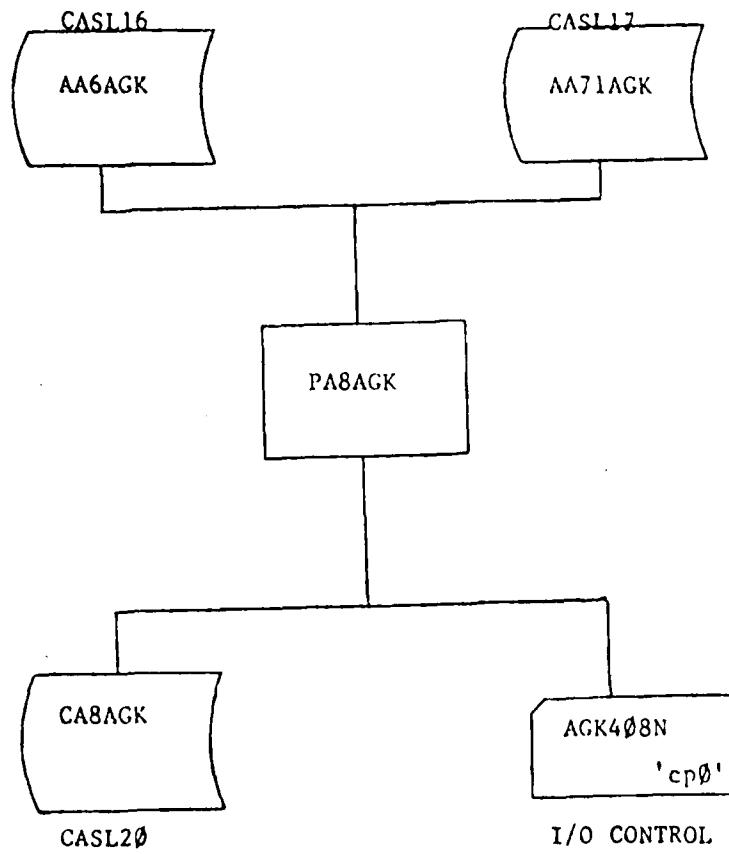
PROCEDURE NO.

CASL19

PROCEDURE FLOWCHART

DATE

10 January 1980



NARRATIVE

This step matches the Aircraft and Missile M1/M2 Records against the Aircraft and Missile ASL Summary Records and produces ASL Recommended Changes as punched output and ASL List Records to go to CASL20.

(87)

- .1 JOB IDENTIFICATION. CASL20.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB AGKD00 AND JOB CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRIAGE TAPE AND PART PAPER.
LABEL 'AGK409N-ASL CHANGE LISTING NON-ESSENTIAL'. SEND TO I/O CONTROL
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP AFTER DESTROYING PREVIOUSLY PRINTED
OUTPUT.

FIGURE 1

```
// EPROC G.CASL20  
// EPROC G.NSDATE  
// EPROC G.DOLLARAA  
// EPROC G.CASL20A ADASD
```

JOB SET UP

FIGURE 2

JOB ID CASL20	RUN DATE		IPL DATE		PAGE 1 OF 1 PAGES	
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/DISPOSITION
SORT	BA8AGK	U	I	DK3/SYS002	WRK2&P	CASL18/ONLINE
	CA9AGK	U	I	DK3/SYS003	WRK2&P	CASL19/ONLINE
	CASL20 SW1	U	I/O	DK2/SYS004	WRK1&P	SCRATCH/SCRATCH
	CASL20 SW2	U	I/O	DK3/SYS005	WRK1&P	SCRATCH/SCRATCH
	AAAAGK	U	O	DK2/SYS001	WRK1&P	SCRATCH/ONLINE
PABAGK	AAAAGK	U	I	DK2/SYS041	WRK1&P	ONLINE/SCRATCH
ADASD	AGK409N	U	O	PRO/SYSLST		I/O CONTROL

SPECIAL INSTRUCTIONS

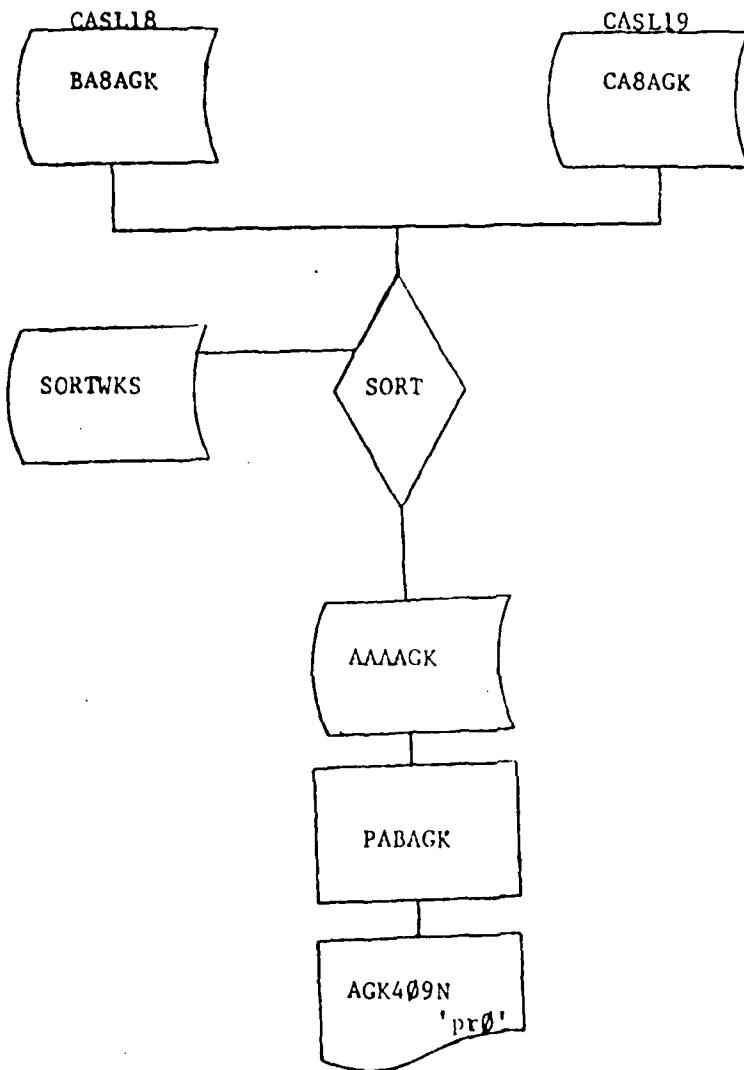
PROCEDURE NO.

CASL20

PROCEDURE FLOWCHART

DATE

10 January 1980



NARRATIVE

This step uses the ASL List Records produced in steps CASL18 and CASL19 to create the ASL Change Listing.

(91)

ANNEX IV

DDC RUN INSTRUCTIONS AND USER PROCEDURES FOR
COMBAT ASL DEMAND ACCOMMODATION COMPUTATION

K-IV-1

CLASS IX REPAIR PARTS SYSTEM

SECTION IX. SUPPLY MANAGEMENT

COMBAT ASL DEMAND ACCOMMODATION COMPUTATION PROCEDURES

Schedule the DDC to produce the monthly CSLPERF prior to the Demand History Update. The listing shows essential and non-essential demands by SIC and by commodity (A=Common, B=Aircraft, C=Missile). Add the demands for essential common items except fringe (Z), and divide by the sum of the demands for essential common items including fringe (Z). The result provides the essential common demand accommodation. Repeat the procedure for aircraft and missile and for non-essential items. The error list identifies items demanded during the current month that did not match the Army Master Data File. Determine if a procedural correction is necessary when too many errors for FSC and NSN are being processed.

5-1-1

Figure C-91.1 Supply Performance Report - Combat ASL

NON-ESSENTIAL DEMANDS

--

J-2.1

DISK DRIVE SET-UP

THIS JOB HAS BEEN DESIGNED TO RUN ON EITHER 1 DISK DRIVE OR 2. LISTED BELOW ARE THE WAYS TO RUN THIS JOB DEPENDING ON HOW MANY DISK DRIVES YOU HAVE AVAILABLE.

1. 1 DISK DRIVE AND 1 PLUG.

a. MOUNT DLG935 AND START THE JOB. WHEN YOU GET THE MOUNT MESSAGE FOR DDCPAC, REMOVE DLG935 AND MOUNT DDCPAC IN ITS PLACE. THE JOB WILL THEN CONTINUE AS NORMAL.

2. 2 DISK DRIVES AND 1 PLUG.

a. MOUNT DLG935 AND DDCPAC, PUT THE PLUG IN DLG935, START THE JOB. WHEN YOU GET THE MOUNT MESSAGE FOR DDCPAC MOVE THE PLUG FROM DLG935 TO DDCPAC. THE JOB WILL THEN CONTINUE.

3. 2 DISK DRIVES AND 2 PLUGS.

a. MOUNT DLG935 AND DDCPAC. PUT PLUGS IN BOTH DRIVES. START THE JOB, NO DISK OR PLUG MANIPULATION IS REQUIRED.

CSLPERF1

- .1 JOB IDENTIFICATION. CSLPERF1.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB AGKD00, AND JOB
CASLPARM_X HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRIAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP.

FIGURE 1

// PROC 1.ROWBOTT
// JOB CSLPERF1 L2200-
// PROC 1.CSLPERF1

JOB SET UP

JOB ID CSLPERF1		RUN DATE		IPL DATE		PAGE <u>1</u> OF <u>1</u> PAGES
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL. NO OR VOL SER NO	SOURCE/DISPOSITION
SCOLLATE	X07AGK	U	I	SYS020	DLG935	ONLINE/ONLINE
	X07AGK	U	O	SYS021	WRK1&P	SCRATCH/ONLINE
SCOLLATE	X04AGK	U	I	SYS020	DLG935	ONLINE/ONLINE
	X04AGK	U	O	SYS021	WRK1&P	SCRATCH/CSLPERF2
PULL.DUP	X07AGK	U	I	SYS004	WRK1&P	ONLINE/SCRATCH
	X071AGK	U	O	SYS005	WRK1&P	SCRATCH/CSLPERF2
	N/A	U	O	CP0/SYSPCH	N/A	N/A
SPECIAL INSTRUCTIONS						

(4)

PROGRAM MESSAGES/RESPONSES

PROGRAM TITLE	PROGRAM ID
CBT-ASL PERFORMANCE	CSLPERF1
DISPLAY	ACTION REQUIRED
ADAS-01 DDCPAC NOT MOUNTED- IJSYSCLB	MOUNT DDCPAC

(5)

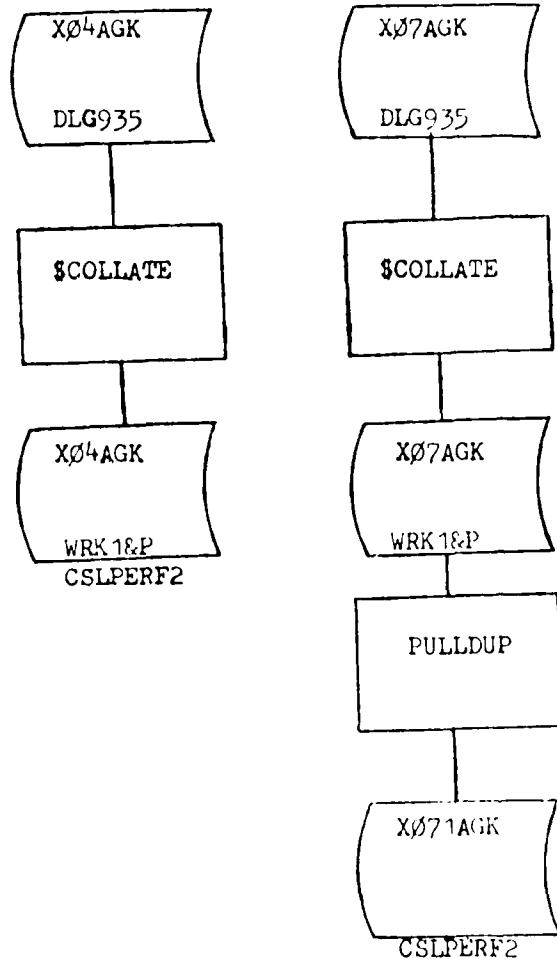
PROCEDURE NO.

CSLPERF1

PROCEDURE FLOWCHART

DATE

14 January 1980



NARRATIVE

This step moves all the master files from DLG935 that will be required during the processing of CBT ASL PERFORMANCE.

(6)

CSLPERF2

- .1 JOB IDENTIFICATION. CSLPERF2.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED.
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB AGKD00, and JOB
CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRIAGE TAPE AND 1 PART PAPER.
NO REPORT IS GENERATED.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP.

FIGURE 1

```
// PROC DDCSET  
// JOB CSLPERF2 L2200-  
// ASSGN EPROC  
// EPROC G.CSLPERF2
```

JOB SET UP

JOB ID CSLPERF2	RUN DATE	IPL DATE			PAGE <u> </u> OF <u> </u> PAGES
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	SOURCE/DISPOSITION
SORT	X04AGK	U	I	DK1/SYS002	WRK1&P
	X041AGK	U	O	DK1/SYS001	WRK1&P
	CSLPERF2, SW1	U	I/O	DK1/SYS003	WRK1&P
DLG001	X041AGK	U	I	SYS010	WRK1&P
	X071AGK	U	I	SYS011	WRK1&P
	X04SLC	U	O	SYS012	WRK1&P
SORT	X04SLC	U	I	DK2/SYS002	WRK1&P
	X042SLC	U	O	DK2/SYS001	WRK1&P
	CSLPERF2, SW1	U	I/O	DK2/SYS003	WRK1&P
FLCR	FAKE	U	I	CR0	FAKE
	FAKEFILE	U	O	SYS021	WRK1&P
SPECIAL INSTRUCTIONS					

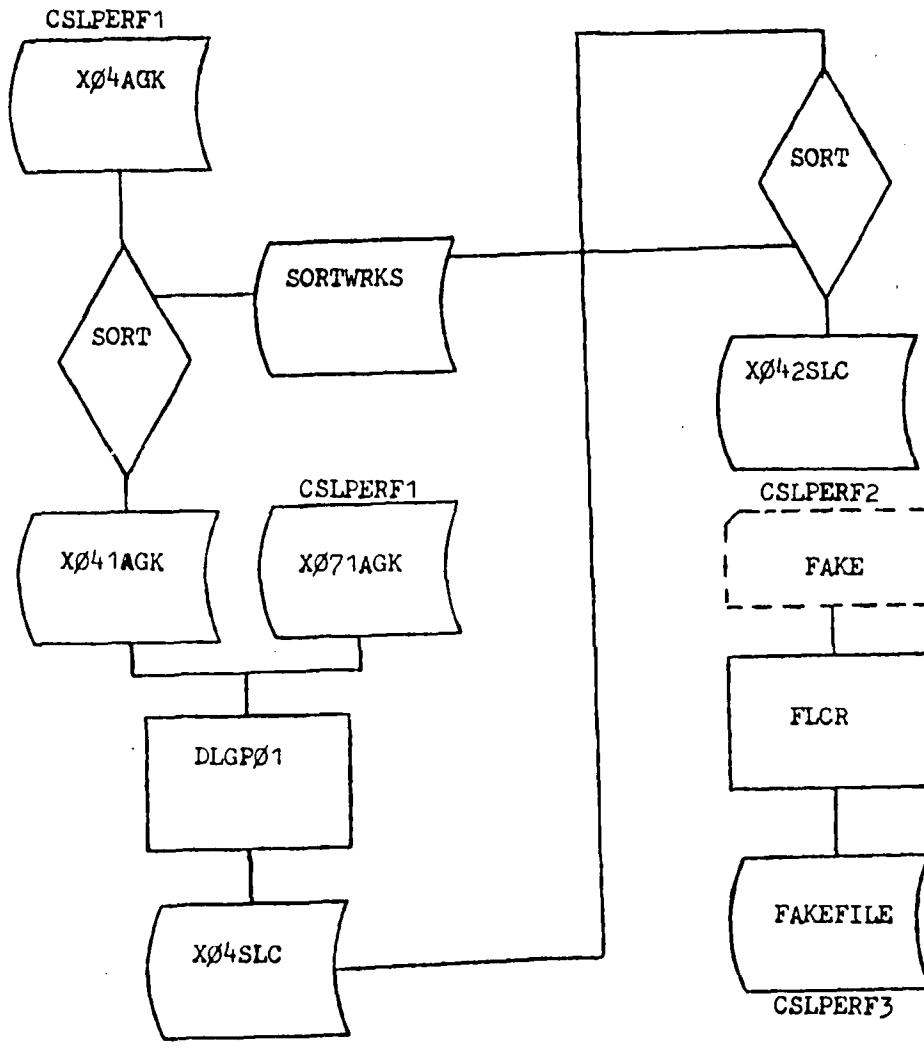
PROCEDURE NO.

CSLPERF2

PROCEDURE FLOWCHART

DATE

14 January 1980



NARRATIVE

This step sorts files and then moves the SLC from a matching X07 record into a X04 record. Then sets up files for next step.



(10)

- .1 JOB IDENTIFICATION. CSLPERF3.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED..
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB ACKD00, and JOB
CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRIAGE TAPE AND PART PAPER. LABEL
'CPERF001 NO MATCH CMDF'. SEND TO I/O CONTROL.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP AFTER DESTROYING PREVIOUSLY
PRINTED OUTPUT AND RESETTING TAPES.

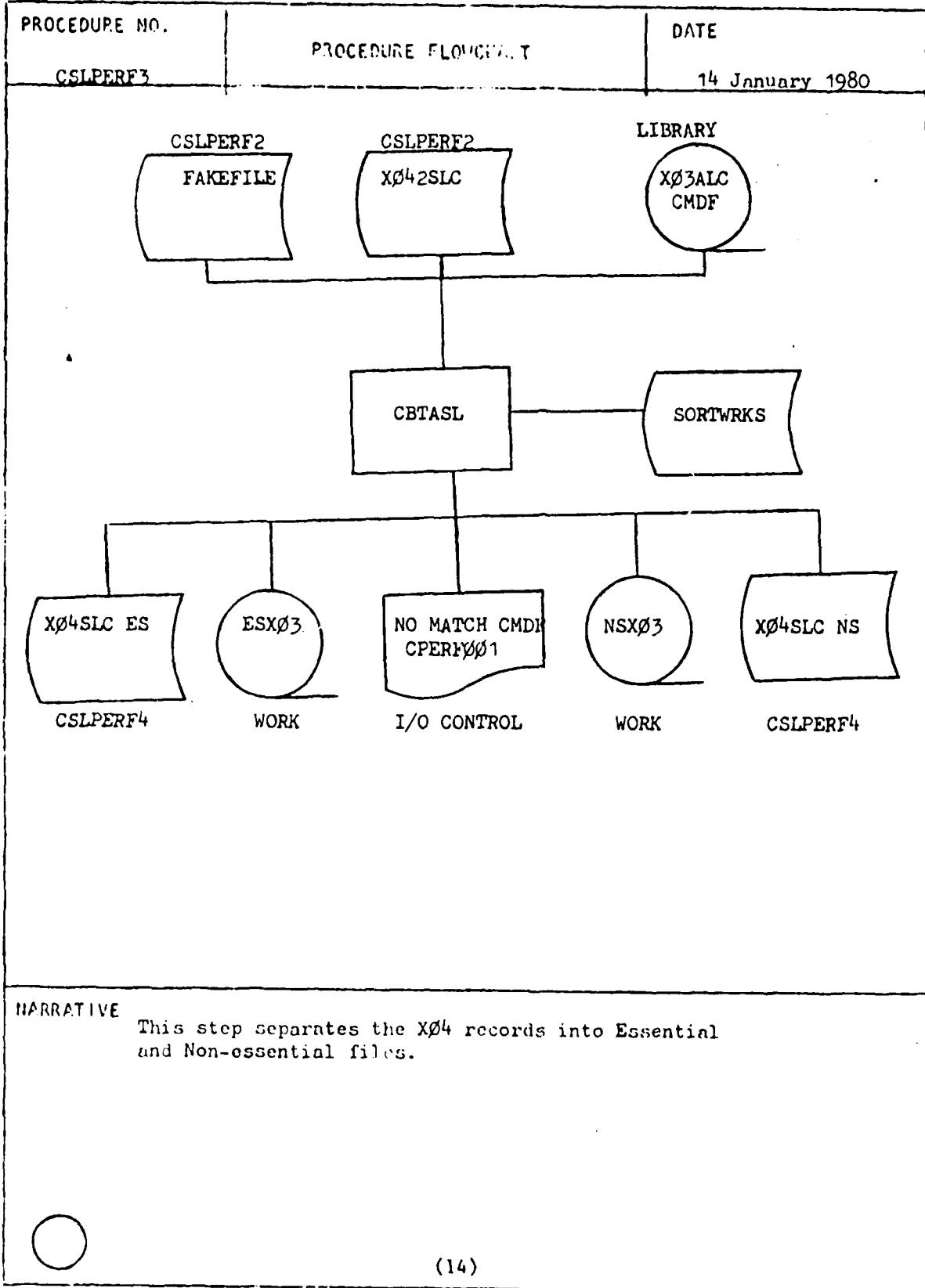
FIGURE 1

// EPROC G.CSLPERF3

(12)

JOB SET UP

JOB ID CSLPERF4		RUN DATE		IPL DATE		PAGE <u>1</u> OF <u>1</u> PAGES	
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/DISPOSITION	
SORT	X04SLC	U	I	DK2/SYS002	WRK1&P	CSLPERF3/ONLINE	
	X041SLC	U	O	DK1/SYS001	WRK1&P	SCRATCH/SCRATCH	
	CSLPERF4, SW1	U	I/O	DK2/SYS003	WRK1&P	SCRATCH/SCRATCH	
SORT	X04SLC NS	U	I	DK2/SYS002	WRK1&P	SCRATCH/ONLINE	
	X041SLC NE	U	O	DK1/SYS001	WRK1&P	SCRATCH/ONLINE	
	CSLPERF, SW1	U	I/O	DK2/SYS003	WRK1&P	SCRATCH/SCRATCH	
DLGP02	X041SLC ES	U	I	SYS020	WRK1&P	ONLINE/SCRATCH	
	X041SLC NE	U	I	SYS021	WRK1&P	ONLINE/SCRATCH	
	CPERF002	U	O	PR0/SYS022		I/O CONTROL	
ADASD							
SPECIAL INSTRUCTIONS							



CSLPERF4

- .1 JOB IDENTIFICATION. CSLPERF4.
- .2 SCHEDULING INFORMATION.
- .2.1 SECURITY CLASSIFICATION. UNCLASSIFIED.
- .2.2 AVERAGE RUN TIME.
- .2.3 CORE REQUIREMENTS. 68K.
- .2.4 PERIPHERAL DEVICES. CARD READER, PRINTER, 4 DISK DRIVES, CARD PUNCH
- .2.5 PROCESSING RESTRICTIONS. RUN UNDER DOS-E.
- .3 DATA CONTROL.
- .3.1 EXTERNAL INPUT DATA. N/A.
- .3.2 CONTROL CARDS. INSURE THAT PARAMETER UPDATE, JOB AGKD00, and JOB
CASLPARM, HAVE BEEN RUN.
- .3.3 DECK SET UP. SEE JCL LIST, FIGURE 1.
- .3.4 PRINTED OUTPUT. USE STANDARD CARRIAGE TAPE AND PART PAPER.
LABEL 'CPERF002 CBT ASL PERFORMANCE RPT'.
SEND TO I/O CONTROL.
- .3.5 CARD OUTPUT. N/A.
- .3.6 JOB SETUP AND OPERATIONS. SEE JOB SETUP AND MESSAGES SHEET, FIGURE 2.
- .4.4 RECOVERY INSTRUCTIONS. RERUN STEP AFTER DESTROYING PREVIOUSLY
PRINTED OUTPUT.

FIGURE 1

// EPROC G.CSLPERF4

(16)

JOB SET UP

JOB ID CSLPERF3		RUN DATE		IPL DATE		PAGE 1 OF 1 PAGES			
PROG ID	FILE ID	SEC CLASS	I/O	DEV/SYS ASSIGN.	REEL NO OR VOL SER NO	SOURCE/DISPOSITION			
CBTASL	FAKEFILE	U	I	SYS011	WRK1&P	CSLPERF2/ONLINE			
	X042SLC	U	I	SYS012	WRK1&P	CSLPERF2/ONLINE			
	X03ALC	U	I	SYS010		*LIBRARY/LIBRARY			
	ESX03	U	O	SYS013		*SCRATCH/SCRATCH			
	NSX03	U	O	SYS014		*SCRATCH/SCRATCH			
	X04SLC ES	U	O	SYS015	WRK1&P	SCRATCH/CSLPERF4			
	X04SLC NS	U	O	SYS016	WRK1&P	SCRATCH/CSLPERF4			
	CPERF001	U	O	PR0/SYS017	N/A	I/O CONTROL			
	CSLPERF, SW1	U	I/O	DK2/SYS001	WRK1&P	SCRATCH/SCRATCH			
	CSLPERF, SW2	U	I/O	DK2/SYS002	WRK1&P	SCRATCH/SCRATCH			
	CSLPERF, SW3	U	I/O	DK2/SYS003	WRK1&P	SCRATCH/SCRATCH			
SPECIAL INSTRUCTIONS									
<ul style="list-style-type: none"> * MOUNT X03ALC * WORK TAPE * WORK TAPE 									

PROCEDURE NO.	PROCEDURE FLOWCHART	DATE
CSLPERF ⁴		14 January 1980
<pre> graph TD A[X04SLC ES] --> B{SORT} C[X04SLC NS] --> D{SORT} B --> E[SORTWRKS] D --> E E --> F{SORT} E --> G{SORT} F --> H[X04SLC ES] G --> I[X04SLC NE] H --> J[DLGP02] I --> J J --> K[CPERF002] K --- L[I/O CONTROL] </pre>		
NARRATIVE <p>This step produces the actual CBT ASL PERFORMANCE report.</p>		
(18)		

ANNEX V
CUMULATIVE DEMAND ACCOMMODATION
CURRENT UNCONSTRAINED ASL VS CONTROL ASL

K-V-1

CUMULATIVE DEMAND ACCOMMODATION (%)

JULY

	CURRENT	CONTROL	DIFFERENCE	
Essential				
Common	87	89	+ 2	
Missile	77	73	- 4	
Aviation	<u>79</u>	<u>76</u>	<u>- 3</u>	
Overall	87	89	+ 2	
Nonessential				
Common	84	73	- 11	
Missile	64	23	- 41	
Aviation	<u>81</u>	<u>62</u>	<u>- 19</u>	
Overall	84	73	- 11	
TOTAL	86	82	- 4	

K-V-2

CUMULATIVE DEMAND ACCOMMODATION (%)

	<u>AUGUST</u>		
	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	87	89	+ 2
Missile	77	75	- 2
Aviation	<u>78</u>	<u>73</u>	<u>- 5</u>
Overall	87	88	+ 1
Nonessential			
Common	84	72	- 12
Missile	62	20	- 42
Aviation	<u>63</u>	<u>54</u>	<u>- 9</u>
Overall	84	71	- 13
TOTAL	85	81	- 4

CUMULATIVE DEMAND ACCOMMODATION (%)

SEPTEMBER

	CURRENT	CONTROL	DIFFERENCE	
Essential				
Common	87	89	+ 2	
Missile	78	72	- 2	
Aviation	<u>77</u>	<u>72</u>	<u>- 5</u>	
Overall	87	89	+ 2	
Nonessential				
Common	84	71	- 13	
Missile	63	25	- 38	
Aviation	<u>66</u>	<u>58</u>	<u>- 8</u>	
Overall	84	71	- 13	
TOTAL	84	81	- 5	

CUMULATIVE DEMAND ACCOMMODATION (%)

OCTOBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	87	89	+ 2
Missile	76	73	- 3
Aviation	<u>77</u>	<u>71</u>	<u>- 5</u>
Overall	87	89	+ 2
Nonessential			
Common	83	70	- 13
Missile	58	25	- 33
Aviation	<u>70</u>	<u>58</u>	<u>- 12</u>
Overall	83	70	- 13
TOTAL	85	81	- 4

K-V-5

CUMULATIVE DEMAND ACCOMMODATION (%)

NOVEMBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	87	89	+ 2
Missile	76	72	- 4
Aviation	<u>77</u>	<u>72</u>	<u>- 5</u>
Overall	87	89	+ 2
Nonessential			
Common	83	70	- 13
Missile	60	30	- 30
Aviation	<u>73</u>	<u>58</u>	<u>- 15</u>
Overall	83	70	- 13
TOTAL	85	80	- 5

CUMULATIVE DEMAND ACCOMMODATION (%)

DECEMBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	87	89	+ 2
Missile	75	70	- 5
Aviation	<u>77</u>	<u>72</u>	<u>- 5</u>
Overall	87	89	+ 2
Nonessential			
Common	83	69	- 14
Missile	63	35	- 28
Aviation	<u>70</u>	<u>55</u>	<u>- 15</u>
Overall	83	69	- 14
TOTAL	85	80	- 5

ANNEX VI

ASL SIZE

K-VI-1

ASL SIZE (LINES)

	CURRENT	CONTROL	<u>JULY</u>		DIFFERENCE
Essential					
Common	3729	4044	+	315	
Missile	173	145	-	28	
Aviation	<u>487</u>	<u>455</u>	-	<u>32</u>	
Overall	4389	4644	+	255	
Nonessential					
Common	2856	1511	-	1345	
Missile	26	15	-	11	
Aviation	<u>39</u>	<u>23</u>	-	<u>16</u>	
Overall	2921	1549	-	1372	
TOTAL	7310	6193	-	1117	

ASL SIZE (LINES)

AUGUST

	CURRENT	CONTROL	DIFFERENCE	
Essential				
Common	3750	4142	+	392
Missile	181	153	-	28
Aviation	<u>506</u>	<u>459</u>	-	<u>47</u>
Overall	4437	4754	+	317
Nonessential				
Common	2884	1364	-	1520
Missile	29	16	-	13
Aviation	<u>36</u>	<u>22</u>	-	<u>14</u>
Overall	2949	1402	-	1547
TOTAL	7386	6156	-	1230

ASL SIZE (LINES)

SEPTEMBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	3741	4126	+ 385
Missile	178	147	- 31
Aviation	<u>505</u>	<u>459</u>	<u>- 46</u>
Overall	4424	4732	+ 308
Nonessential			
Common	2884	1382	- 1502
Missile	29	16	- 13
Aviation	<u>36</u>	<u>21</u>	<u>- 15</u>
Overall	2949	1419	- 1530
TOTAL	7373	6151	- 1222

ASL SIZE (LINES)

OCTOBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	3724	4136	+ 412
Missile	174	145	- 29
Aviation	<u>486</u>	<u>432</u>	<u>- 54</u>
Overall	4384	4713	+ 329
Nonessential			
Common	2896	1334	- 1562
Missile	30	18	- 12
Aviation	<u>33</u>	<u>20</u>	<u>- 13</u>
Overall	2959	1372	- 1587
TOTAL	7343	6085	- 1258

ASL SIZE (LINES)

NOVEMBER

	CURRENT	CONTROL	DIFFERENCE	
Essential				
Common	3748	4181	+ 433	
Missile	175	146	- 29	
Aviation	<u>473</u>	<u>421</u>	<u>- 52</u>	
Overall	4396	4748	+ 352	
Nonessential				
Common	2956	1335	- 1621	
Missile	29	18	- 11	
Aviation	<u>34</u>	<u>20</u>	<u>- 14</u>	
Overall	3019	1373	- 1646	
TOTAL	7415	6121	- 1294	

ASL SIZE (LINES)

DECEMBER

	CURRENT	CONTROL	DIFFERENCE	
Essential				
Common	3771	4220	+ 449	
Missile	171	141	- 30	
Aviation	<u>472</u>	<u>413</u>	<u>- 59</u>	
Overall	4414	4774	+ 360	
Nonessential				
Common	3002	1325	- 1677	
Missile	30	18	- 12	
Aviation	<u>34</u>	<u>21</u>	<u>- 13</u>	
Overall	3066	1364	- 1702	
TOTAL	7480	6138	- 1342	

ANNEX VII
ASL TURBULENCE

K-VII-1

CUMULATIVE ASL TURBULENCE (%)

JULY

CURRENT CONTROL DIFFERENCE

Essential

Common	3	4	+ 1
Missile	5	9	+ 4
Aviation	<u>3</u>	<u>2</u>	<u>- 1</u>
Overall	3	4	+ 1

Nonessential

Common	3	1	- 2
Missile	14	7	- 7
Aviation	<u>7</u>	<u>7</u>	<u>+ 0</u>
Overall	3	1	- 2
TOTAL	3	3	0

CUMULATIVE ASL TURBULENCE (%)

AUGUST

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	4	5	+ 1
Missile	7	13	+ 6
Aviation	<u>4</u>	<u>3</u>	<u>- 1</u>
Overall	4	5	+ 1
Nonessential			
Common	5	2	- 3
Missile	11	6	- 5
Aviation	<u>7</u>	<u>13</u>	<u>+ 6</u>
Overall	5	3	- 2
TOTAL	5	5	0

CUMULATIVE ASL TURBULENCE (%)

SEPTEMBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	15	17	+ 2
Missile	13	26	+ 13
Aviation	<u>11</u>	<u>8</u>	- 3
Overall	15	16	+ 1
Nonessential			
Common	17	14	- 3
Missile	23	13	- 10
Aviation	<u>15</u>	<u>21</u>	+ 6
Overall	17	14	- 3
TOTAL	15	16	+ 1

CUMULATIVE ASL TURBULENCE (%)

OCTOBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	20	22	+ 2
Missile	21	36	+ 15
Aviation	<u>19</u>	<u>14</u>	<u>- 5</u>
Overall	20	22	+ 2
Nonessential			
Common	22	19	- 3
Missile	34	40	+ 6
Aviation	<u>23</u>	<u>30</u>	<u>+ 7</u>
Overall	22	19	- 3
TOTAL	21	21	0

CUMULATIVE ASL TURBULENCE (%)

NOVEMBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	24	26	+ 2
Missile	23	38	+ 15
Aviation	<u>24</u>	<u>20</u>	- 4
Overall	24	25	+ 1
Nonessential			
Common	26	21	- 5
Missile	47	53	+ 6
Aviation	<u>26</u>	<u>30</u>	+ 4
Overall	26	22	- 4
TOTAL	25	24	- 1

CUMULATIVE ASL TURBULENCE (%)

DECEMBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	26	29	+ 3
Missile	25	43	+ 18
Aviation	<u>28</u>	<u>23</u>	- 5
Overall	27	29	+ 2
Nonessential			
Common	29	24	- 5
Missile	42	53	+ 11
Aviation	<u>30</u>	<u>34</u>	+ 4
Overall	29	24	- 5
TOTAL	28	28	0

ANNEX VIII
DOLLAR VALUE OF REQUISITIONING OBJECTIVES

K-VIII-1

ASL COST (WHOLE DOLLARS)

JULY

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	\$ 961,740	\$ 992,715	+\$ 30,975
Missile	311,751	228,883	- 82,868
Aviation	<u>145,710</u>	<u>133,887</u>	<u>- 11,823</u>
Overall	1,419,201	1,355,485	- 63,716
Nonessential			
Common	448,727	332,674	- 116,053
Missile	8,076	7,349	- 727
Aviation	<u>19,284</u>	<u>6,057</u>	<u>- 13,227</u>
Overall	476,087	346,080	- 130,007
TOTAL	1,895,288	1,701,565	- 193,723

ASL COST (WHOLE DOLLARS)

AUGUST

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	\$ 788,622	\$ 821,005	+\$ 32,383
Missile	301,369	215,369	- 86,000
Aviation	<u>146,871</u>	<u>132,737</u>	<u>- 14,134</u>
Overall	1,236,862	1,169,111	- 67,751
Nonessential			
Common	401,070	277,146	- 123,924
Missile	8,192	7,344	- 848
Aviation	<u>14,485</u>	<u>3,701</u>	<u>- 10,784</u>
Overall	423,747	288,191	- 135,556
TOTAL	1,660,609	1,457,302	- 203,307

ASL COST (WHOLE DOLLARS)

SEPTEMBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	\$ 774,938	\$ 807,337	+\$ 32,399
Missile	286,863	198,488	- 88,375
Aviation	<u>144,796</u>	<u>130,834</u>	<u>- 13,962</u>
Overall	1,206,597	1,136,659	- 69,938
Nonessential			
Common	401,997	277,263	- 124,734
Missile	8,389	7,437	- 952
Aviation	<u>14,037</u>	<u>3,214</u>	<u>- 136,509</u>
Overall	424,423	287,914	- 136,509
TOTAL	1,631,020	1,424,573	- 206,447

ASL COST (WHOLE DOLLARS)

OCTOBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	\$ 751,210	\$ 799,240	+\$ 48,030
Missile	276,096	192,008	- 84,088
Aviation	<u>141,291</u>	<u>125,087</u>	<u>- 16,204</u>
Overall	1,168,597	1,116,335	- 52,262
Nonessential			
Common	399,296	271,851	- 127,445
Missile	8,230	7,295	- 935
Aviation	<u>11,527</u>	<u>2,677</u>	<u>- 8,850</u>
Overall	419,053	281,823	- 137,230
TOTAL	1,587,650	1,398,158	- 189,492

ASL COST (WHOLE DOLLARS)

NOVEMBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	\$ 747,855	\$ 798,823	+\$ 50,968
Missile	274,641	190,452	- 84,189
Aviation	<u>137,083</u>	<u>122,892</u>	<u>- 14,191</u>
Overall	1,159,579	1,112,167	- 47,412
Nonessential			
Common	411,462	278,400	- 133,062
Missile	8,197	7,366	- 831
Aviation	<u>11,629</u>	<u>2,653</u>	<u>- 8,976</u>
Overall	431,288	288,419	- 142,869
TOTAL	1,590,867	1,400,586	- 190,281

ASL COST (WHOLE DOLLARS)

DECEMBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	\$ 731,730	\$ 782,853	+\$ 51,123
Missile	267,596	167,325	- 100,271
Aviation	<u>137,617</u>	<u>117,361</u>	<u>- 20,256</u>
Overall	1,136,943	1,067,539	- 69,404
Nonessential			
Common	409,405	275,044	- 134,361
Missile	8,152	7,273	- 879
Aviation	<u>11,743</u>	<u>2,890</u>	<u>- 8,853</u>
Overall	429,300	285,207	- 144,093
TOTAL	1,566,243	1,352,746	- 213,497

ANNEX IX
ASL WEIGHT

K-IX-1

ASL WEIGHT (POUNDS)

JULY

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	359,419	365,109	+ 5,690
Missile	2,646	2,264	- 382
Aviation	<u>6,453</u>	<u>6,093</u>	<u>- 360</u>
Overall	368,518	373,466	+ 4,948
Nonessential			
Common	165,075	129,941	- 35,134
Missile	181	61	- 120
Aviation	<u>597</u>	<u>243</u>	<u>- 354</u>
Overall	165,853	130,245	- 35,608
TOTAL	534,371	503,711	- 30,660

ASL WEIGHT (POUNDS)

AUGUST

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	279,617	285,596	+ 5,979
Missile	2,499	2,073	- 426
Aviation	<u>6,567</u>	<u>6,103</u>	<u>- 464</u>
Overall	288,683	293,772	+ 5,089
Nonessential			
Common	147,948	107,480	- 40,463
Missile	184	60	- 124
Aviation	<u>574</u>	<u>130</u>	<u>- 444</u>
Overall	148,706	107,670	- 41,036
TOTAL	437,389	401,442	- 35,947

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VARIABLE CLASS IX AUTHORIZED STOCKAGE LIST (ASL) 4/4

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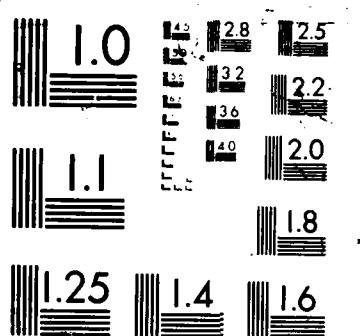
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ASL WEIGHT (POUNDS)

SEPTEMBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	269,201	275,087	+ 5,886
Missile	2,220	1,727	- 493
Aviation	<u>6,925</u>	<u>6,464</u>	<u>- 461</u>
Overall	278,346	283,278	+ 4,932
Nonessential			
Common	156,827	107,130	- 49,697
Missile	203	62	- 141
Aviation	<u>566</u>	<u>122</u>	<u>- 444</u>
Overall	157,596	107,314	- 50,282
TOTAL	435,942	390,592	- 45,350

ASL WEIGHT (POUNDS)

OCTOBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	261,793	268,221	+ 6,428
Missile	2,038	1,608	- 430
Aviation	<u>6,926</u>	<u>6,410</u>	<u>- 516</u>
Overall	270,757	276,239	+ 5,482
Nonessential			
Common	156,691	106,624	- 50,067
Missile	203	80	- 123
Aviation	<u>232</u>	<u>113</u>	<u>- 119</u>
Overall	157,126	106,817	- 50,309
TOTAL	427,883	383,056	- 44,827

K-IX-5

ASL WEIGHT (POUNDS)

NOVEMBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	257,057	263,450	+ 6,393
Missile	1,969	1,531	- 438
Aviation	<u>7,047</u>	<u>6,575</u>	<u>- 472</u>
Overall	266,073	271,556	+ 5,483
Nonessential			
Common	160,636	109,631	- 51,005
Missile	201	80	- 121
Aviation	<u>332</u>	<u>112</u>	<u>- 220</u>
Overall	161,169	109,823	- 51,346
TOTAL	427,242	381,379	- 45,863

ASL WEIGHT (POUNDS)

DECEMBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	247,761	254,050	+ 6,289
Missile	1,972	1,408	- 564
Aviation	<u>6,655</u>	<u>6,165</u>	<u>- 490</u>
Overall	256,388	261,623	+ 5,235
Nonessential			
Common	161,380	110,456	- 50,924
Missile	203	81	- 122
Aviation	<u>333</u>	<u>113</u>	<u>- 220</u>
Overall	161,916	110,650	- 51,266
TOTAL	418,304	372,273	- 46,031

ANNEX X
ASL CUBE

K-X-1

ASL CUBE (CUBIC FEET)

	<u>JULY</u>		
	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	14,307	14,637	+ 330
Missile	259	214	- 45
Aviation	<u>1,170</u>	<u>1,127</u>	<u>- 43</u>
Overall	15,736	15,978	- 242
Nonessential			
Common	12,050	9,898	- 2,152
Missile	13	3	- 10
Aviation	<u>200</u>	<u>131</u>	<u>- 69</u>
Overall	12,263	10,032	- 2,231
TOTAL	27,999	26,010	- 1,989

ASL CUBE (CUBIC FEET)

	<u>AUGUST</u>		
	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	11,626	12,009	+ 383
Missile	245	198	- 47
Aviation	<u>1,042</u>	<u>970</u>	<u>- 72</u>
Overall	12,913	13,177	+ 264
Nonessential			
Common	10,632	7,863	- 2,769
Missile	13	3	- 10
Aviation	<u>197</u>	<u>30</u>	<u>- 167</u>
Overall	10,842	7,896	- 2,946
TOTAL	23,755	21,073	- 2,682

ASL CUBE (CUBIC FEET)

SEPTEMBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	115,561	12,004	+ 443
Missile	221	165	- 56
Aviation	<u>1,109</u>	<u>1,037</u>	<u>- 72</u>
Overall	12,891	13,206	+ 315
Nonessential			
Common	11,673	7,813	- 3,860
Missile	14	3	- 11
Aviation	<u>194</u>	<u>28</u>	<u>- 166</u>
Overall	11,881	7,844	- 4,037
TOTAL	24,772	21,050	- 3,722

K-X-4

ASL CUBE (CUBIC FEET)

OCTOBER

	CURRENT	CONTROL	DIFFERENCE	
Essential				
Common	11,413	11,906	+	493
Missile	209	161	-	48
Aviation	<u>1,080</u>	<u>1,002</u>	<u>-</u>	<u>78</u>
Overall	12,702	13,069	+	367
Nonessential				
Common	11,528	7,590	-	3,938
Missile	14	4	-	10
Aviation	<u>159</u>	<u>27</u>	<u>-</u>	<u>132</u>
Overall	1,1701	7,621	-	4,080
TOTAL	24,403	20,690	-	3,713

ASL CUBE (CUBIC FEET)

NOVEMBER

	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	11,474	11,948	+ 474
Missile	203	155	- 48
Aviation	<u>1,020</u>	<u>951</u>	<u>- 69</u>
Overall	12,697	13,054	- 357
Nonessential			
Common	11,727	7,720	- 4,007
Missile	13	4	- 9
Aviation	<u>159</u>	<u>27</u>	<u>- 137</u>
Overall	11,899	7,751	- 4,148
TOTAL	24,596	20,805	- 3,791

ASL CUBE (CUBIC FEET)

	<u>DECEMBER</u>		
	CURRENT	CONTROL	DIFFERENCE
Essential			
Common	11,112	11,579	+ 467
Missile	203	146	- 57
Aviation	<u>955</u>	<u>883</u>	<u>- 72</u>
Overall	12,270	12,608	+ 338
Nonessential			
Common	11,706	7,623	- 4,083
Missile	14	4	- 10
Aviation	<u>159</u>	<u>26</u>	<u>- 133</u>
Overall	11,879	7,653	- 4,226
TOTAL	24,149	20,261	- 3,888

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